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ABORIGINAL-CANADIANS AND ENERGY LITERACY: A SURVEY OF OPINIONS AND THOUGHTS ON ENERGY

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SUMMARY

In Canada, the energy and resource industry, its investments, employment and products have an effect on every citizen and every cultural group. And yet, the public debate over energy projects in Canada is increasingly divisive. Aboriginal-Canadians are an important part of the debate over land use and energy development, and it is essential to understand the attitudes towards and knowledge of energy in this unique group.

This survey of Aboriginal-Canadians from across the country reveals that their knowledge and opinions about Canada's energy system are similar to that of Canadians polled in previous surveys of the general population and of business and policy leaders. However, in a few key areas, the opinions of Aboriginal-Canadians diverge from those of other poll respondents. Aboriginal-Canadians place less trust in business, industry groups and the government as reliable sources of information about energy issues. Thirty-four per cent of Aboriginal-Canadians put absolutely no trust in information from oil and gas companies, compared to 26 per cent of the general public, and 24 per cent of Aboriginal-Canadians put no trust in information from the federal government, compared to only 15 per cent of the general public. Additionally, Aboriginal-Canadians tend to place a much higher emphasis on environmental preservation over economic concerns: they say they are "very concerned" about the environmental impacts of energy production at a rate that is 14 percentage points higher than the general public.

Land and land access are important issues for the Aboriginal-Canadians surveyed. They reluctantly support oil and gas pipelines near their communities, with only 38 per cent in favour. When project development delivers additional funding for educational and social programs in their community, support shifts to a slight majority (51 per cent).

This survey highlights the need for simultaneously extending efforts to improve the energy literacy of this important demographic and cultural group, while incorporating their opinions, beliefs and land ethics into long-term energy development strategies. Overall, this group understands many of the overarching issues facing energy development that impacts them, yet reinforces the gap in public knowledge revealed in the previous surveys. Developing Canadian energy will require addressing Aboriginal-Canadian concerns, including lack of trust and the environmental impacts of energy projects.

[†] *The authors wish to acknowledge the helpful comments of the anonymous referees.*

INTRODUCTION

This study is the third in a series of surveys on Canadian energy literacy and opinions on energy. The first was a pan-Canadian survey of 1,508 households,[1] while the second surveyed 589 business and policy leaders across Canada.[2] This current report presents the results of a survey of Aboriginal people across Canada, their knowledge of energy issues and preferences for dealing with the challenges of energy efficiency, land access and environmental protection in the future. This survey is confined to this group of Canadians and the conclusions are not meant to represent or characterize energy literacy in terms of all residents of Canada. A further report will combine and contrast all three of the surveys and make recommendations for program and policy design on this topic.

Aboriginal people figure prominently in policy discussions involving the energy industry at every level of government and regulation today in Canada. Soliciting the opinion of this important cultural segment of the country has not been previously undertaken at this scale, and the outcome is illuminating in terms of future policy and targets for improving overall energy literacy.

The Aboriginal population in Canada is approximately 44 per cent rural, compared to the Canadian population as a whole, which is 20 per cent rural. Many of these rural aboriginal communities are remote and potentially off grid,[3] creating unique environmental and energy-use challenges. There are 292 off-grid communities in Canada, 170 of which are Aboriginal. Of the off-grid Aboriginal communities, 16 are in Newfoundland and Labrador, 19 in Quebec, 25 in Ontario, four in Manitoba, one in Saskatchewan, 25 in B.C., 21 in the Yukon, 33 in the Northwest Territories and 26 are in Nunavut.[4] The majority of these communities rely on diesel generators for power, though some have hydro as the main source, and diesel generators as a backup. Relying on diesel is expensive, not only because of transportation costs, but also due to the greenhouse gas emissions associated with combustion and transportation.

Given these unique challenges, as well as their unique status in Canada, a survey of Aboriginal-Canadians' opinions on energy is a necessary component for furthering energy policy discussions. A total of 300 Aboriginal people participated in this study.[5] The participants were recruited from an original sample of Aboriginals and First Nations and were then randomly drawn to allow proportionate representation from each province and territory. Participants were

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1 André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," *The School of Public Policy Research Papers* 5, 32 (October 2012).

2 Michal C. Moore et al., "Energy and Energy Literacy in Canada: A Survey of Business and Policy Leadership," T*he School of Public Policy Research Papers* 6, 10 (February 2013).

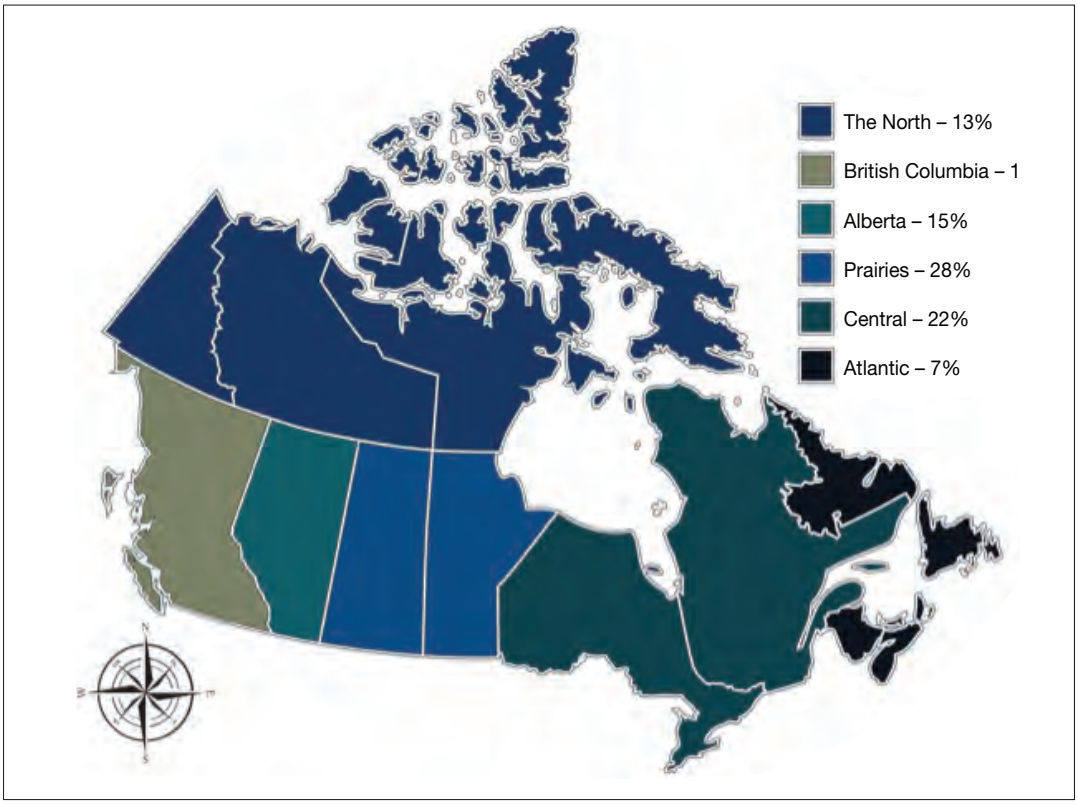
3 Although many of the respondents' residences were classified as rural, the survey did not differentiate between rural areas served by common electrical systems and those that are off-grid. An off-grid community, as defined by Natural Resources Canada, is a community that is not connected to the North American electrical grid, nor the piped natural gas network; it is permanent or long-term (existing five years or more), and there are at least 10 permanent buildings in the settlement.

4 Government of Canada, "Status of Remote/Off-Grid Communities in Canada," August 2011, http://publications.gc.ca/collections/collection_2013/rncan-nrcan/M154-71-2013-eng.pdf.

5 See Appendix A for a description of the survey methodology.

given the option to complete the study online or over the phone.[6] Interviews were completed between July 6–15th, 2013. As noted in the figure below, participants were from all regions of the country. Further details on the methodology[7] for all three surveys are available in Appendix A.

FIGURE 1: DISTRIBUTION OF RESPONDENTS ACROSS CANADA



Aboriginal-Canadians comprise an important block of citizens, though they are a relatively small proportion of Canada's population. Their knowledge and behaviour in the face of changing energy demands and supplies matters in determining public policy. In many ways, however, the design and living patterns of Aboriginal communities impose challenges on this group that may not be experienced by others, especially in rural areas. These challenges include dependence on imported fuels such as diesel or limited hydroelectric facilities firmed or backed by diesel or gasoline generators. Given the dispersed nature of rural communities, it is apparent from our survey that structural energy efficiency may offer more immediate and useful benefits for them.

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6 According to Statistics Canada, more than three-quarters (78 per cent) of Canadian households indicated they had a cellphone in 2010, up from 74 per cent in 2008. The proportion of households with cellphones was highest in three western provinces — Alberta (87 per cent), Saskatchewan (83 per cent) and British Columbia (82 per cent) — and in Ontario (81 per cent). Quebec had the lowest rate of cellphone use at 69 per cent of households. See: http://www.statcan.gc.ca/daily-quotidien/110405/dq110405a-eng.htm.

7 For further discussion on this technique, see: M.W. Link, et al., "Reaching the U.S. Cell Phone Generation: Comparison of Cell Phone Survey Results with an Ongoing Landline Telephone Survey," *Public Opinion Quarterly* 71, 5 (2007): 814-839

A key objective of this study is to continue to develop a baseline of knowledge regarding energy and energy economics in Canada, with a special focus on Aboriginal-Canadians. We intend to use that baseline to understand where investments and changes in behaviour can result in a combination of more efficient and effective use of energy, and where involvement in long-term energy resource development and land use can simultaneously maintain cultural integrity with economic stability.

This paper is divided into seven sections. Following this introduction, we provide a general background of Aboriginal communities in Canada. We then describe responses relating to the public opinion environment, followed by a discussion of general knowledge on energy-related issues. A subsequent section of this paper covers community and policy concerns, followed by a section that outlines responses to questions on the future. The last section of this paper provides conclusions. Appendix A details the survey methodology, and Appendix B compares the survey demographic characteristics to Aboriginal-Canadian demographic characteristics. Appendix C contains the survey questions.

BACKGROUND: ABORIGINAL COMMUNITIES IN CANADA

Statistics Canada's *Aboriginal Statistics at a Glance* provides the most detailed data regarding the characteristics of Aboriginal peoples in Canada.[8] It is based on the 1996, 2001 and 2006 censuses of population, the 2006 Aboriginal Survey, the 2005 Canadian Community Health Survey and the 2007/2008 Adult Correctional Services Survey. In the 2006 census, Canada was estimated to have a population of 1,172,785 Aboriginal-identity peoples,[9] 3.8 per cent of the total Canadian population. The Aboriginal population was 59.5 per cent First Nations, 4.3 per cent Inuit, and 33.2 per cent Métis, with the remaining three per cent unidentified as a specific cultural group. Aboriginal Affairs and Northern Development Canada identify 635 Aboriginal and First Nations communities, and 53 Inuit communities, representing more than 50 nations or cultural groups.

Data from the 2011 National Household Survey (NHS) shows that 1,400,685 people in Canada have an Aboriginal identity, representing 4.3 per cent of the national population.[10] The Aboriginal population increased 20.1 per cent between 2006 and 2011, compared to 5.2 per cent for the non-aboriginal population in Canada. The Aboriginal population identified in the NHS is heavily weighted towards Ontario and the four western provinces, with eight in 10 living in one of those five provinces.

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8 Statistics Canada, "Aboriginal Statistics at a Glance," catalogue number 89-645-XWE, June 2010, http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=89-645-x&lang=eng.

9 According to Statistics Canada, "the total Aboriginal identity population includes the Aboriginal groups (North American Indian, Métis and Inuit), multiple Aboriginal responses and Aboriginal responses not included elsewhere."

10 Statistics Canada, "Aboriginal Peoples in Canada: Aboriginal Peoples, Metis and Inuit," catalogue number 99-011-X2011001, 2011, http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.cfm.

According to the Congress of Aboriginal Peoples, the current percentage of those now living off-reserve is estimated to be over 600,000, or 70 per cent of the Aboriginal population.[11] However, a report produced by the National Aboriginal Development Board identifies 56.9 per cent of Aboriginal people as living off-reserve; if Inuit and Métis are counted as off-reserve as well, 71.4 per cent of aboriginals live off-reserve.[12] This is likely an overestimate, as both Inuit and Métis people live on reserves as well as off-reserve. According to Aboriginal Affairs and Northern Development Canada, 54 per cent of Aboriginal people live in urban areas.[13] Table 1 outlines Aboriginal population by urban or rural location and heritage group for Canada.

TABLE 1: ABORIGINAL POPULATION BY HERITAGE GROUP AND URBAN OR RURAL LOCATION (2006)

	Aboriginal people (on-reserve)	Aboriginal people (off-reserve)	Aboriginal people (total)	Inuit	Métis	Aboriginal (total)	Non-Aboriginal
COUNTS							
Canada	300,755	397,265	698,025	50,485	389,780	1,172,785	30,068,240
Rural	269,285	85,210	354,500	31,450	118,700	516,865	5,701,425
Urban	31,465	312,055	343,525	19,030	271,080	655,925	24,366,815
PERCENTAGES OF TOTAL POPULATION							
Canada	0.96%	1.27%	2.23%	0.16%	1.25%	3.75%	96.25%
Rural	0.86%	0.27%	1.13%	0.10%	0.38%	1.65%	18.25%
Urban	0.10%	1.00%	1.10%	0.06%	0.87%	2.10%	78.00%

Source: Table ii in Annex of "The Aboriginal Economic Benchmarking Report." Note: for heritage groups other than Aboriginal people, both urban and rural categories include individuals living on and off reserves.

Figure 2 shows the population distribution for all Canadians (2006 and 2011) compared to the Aboriginal-identity population (2006 and 2011) from the 2006 census and the 2011 National Household Survey. First, comparing the census population counts and the NHS population counts, we see the Aboriginal population is much more evenly distributed across Canada than is the total Canadian population, with a much greater presence in the northern territories. The difference in the population distribution in Quebec, Ontario, Manitoba and Saskatchewan is particularly striking.

There is a myth surrounding the locations of Aboriginal communities and the population they support. The myth suggests that almost all Aboriginal people live on reserves and in rural areas. The most recent evidence from Statistics Canada data[14] reveals this to be an outdated conception. Figure 3 shows the distribution of the Aboriginal-Canadian population by sex and residency (on-reserve and off-reserve). The majority of the Aboriginal population lives off-reserve; in no province or region is the number of Aboriginal-Canadians on-reserve higher than that of those living off-reserve.

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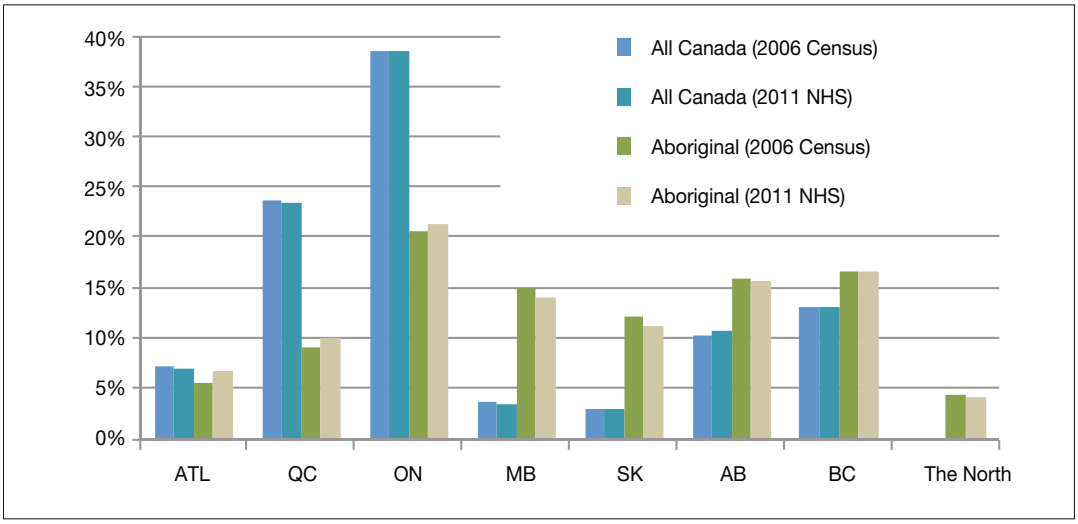
[11] Congress of Aboriginal Peoples, "Frequently Asked Questions," http://www.abo-peoples.org/faq/.

[12] The National Aboriginal Economic Development Board, "The Aboriginal Economic Benchmarking Report," June 2012.

[13] Aboriginal Affairs and Northern Development Canada, "First Nations," http://www.aadnc-aandc.gc.ca/eng/1100100013791/1100100013795.

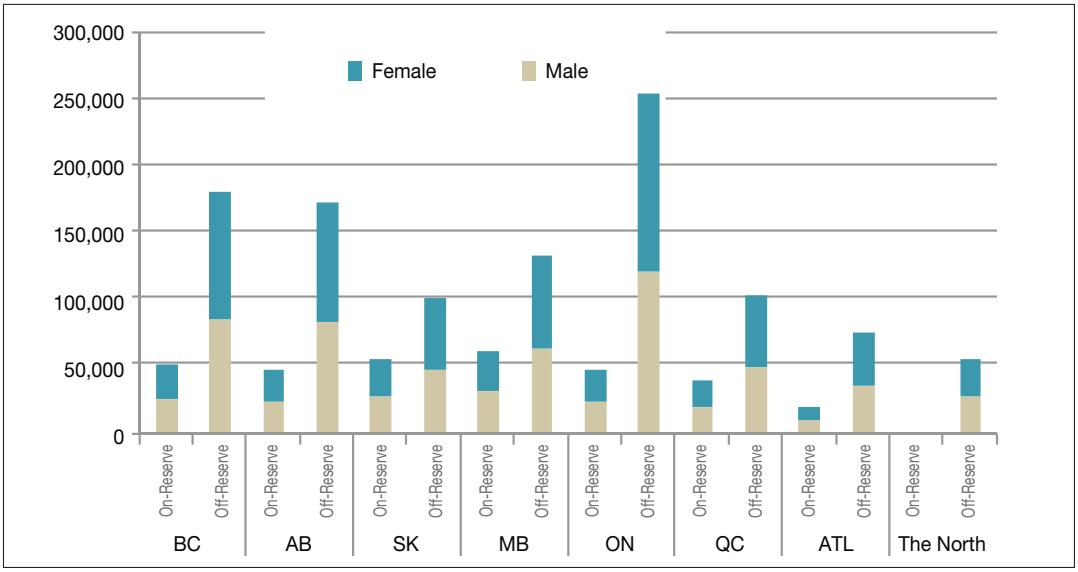
[14] J. Usalcas, "The Aboriginal Labour Force Analysis Series," Statistics Canada, November 23, 2011, Publication: 71 588-XWE, http://www5.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=71-588-XWE&lang=eng.

FIGURE 2: POPULATION DISTRIBUTION – ALL CANADIANS AND ABORIGINAL-IDENTITY POPULATION



Source: Statistics Canada, 2006 Census, Aboriginal Peoples Highlight Tables and "Aboriginal Peoples in Canada: Aboriginal Peoples, Métis and Inuit."

FIGURE 3: ABORIGINAL-IDENTITY POPULATION DISTRIBUTION BY SEX AND RESIDENCY (2011)



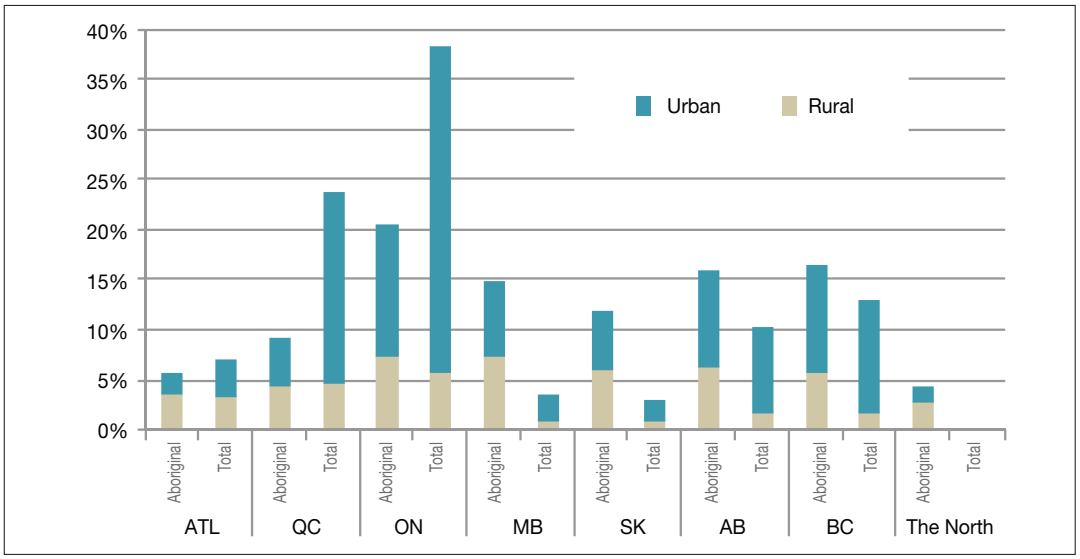
Source: Statistics Canada, 2011 National Household Survey, Statistics Canada Catalogue no. 99-011-X2011026.

Aboriginal people are found in and reside in every province and territory. The largest number of groups are found in British Columbia and the Prairie provinces generally, but in terms of percentage of total population by jurisdiction, the highest concentrations of Aboriginal people are found in the territories. In Manitoba and Saskatchewan, approximately 20 per cent of the population identifies as Aboriginals, more than four times the average of those making that claim elsewhere in Canada.

Overall, dividing the population into those living on and off reserves, 20 per cent of Aboriginals lived on reserves as of 2011, while 54 per cent of all Aboriginals in 2011 lived in

urban areas. These shares have been relatively constant over the past decade. The implication is that most Aboriginal people are urban dwellers or living in off-reserve communities. Figure 4 shows the urban-rural breakdown of Aboriginal-Canadians in 2006.

FIGURE 4: POPULATION DISTRIBUTION, URBAN AND RURAL ABORIGINAL-CANADIANS AND ALL CANADIANS BY REGIONS (2006)



Source: Statistics Canada, 2006 Census, Aboriginal-Peoples Highlight Tables

For Canadians in general, the population is predominantly urban, with 80 per cent of the population in urban environments. For Aboriginal-Canadians, the urban-rural split is much more even; the population is only dominantly rural in Atlantic Canada and the northern territories.

While many Aboriginal-Canadians live in urban areas, many Aboriginal communities are remote. As noted above, of the 292 off-grid communities in Canada, 170 are Aboriginal or Inuit communities. Approximately 25 per cent of Aboriginal communities in Canada are off-grid with unique energy challenges.

THE PUBLIC OPINION ENVIRONMENT

This survey and others[15] suggests not only a wider distribution of living patterns than what is normally assumed, but also broader interest in what might be considered pan-Canadian or world-level issues, tempered with strong cultural and regional biases. Statistics Canada reports that 53 per cent of Aboriginal-Canadians live in urban areas, 26 per cent live on-reserve and 21 per cent live in rural locations.[16] The upshot is that values, knowledge and expectation reflect not only cultural and historical influences on behaviour but, as observed in other groups surveyed, income and status as well.

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[15] The National Aboriginal Economic Development Board, "The Aboriginal Economic Benchmarking Report," June 2012; and Statistics Canada, "Aboriginal Statistics."

[16] Statistics Canada, "Aboriginal Statistics."

The Most Important Issues for Respondents

Energy-related issues are of growing concern to planners, legislators and policy-makers around the world. In Canada, like other developed countries, key issues receiving attention in public policy circles include energy conservation, environmental impacts (especially climate change), and energy security (i.e., the assurance of ongoing access to affordable sources of energy). In turn, we increasingly see media coverage of energy matters, particularly stories regarding government's role in managing environmental effects and planning for future energy needs by ensuring sustainability.

Despite the increasing pressure on governments to deal with energy issues and forestall potential crises arising from shortages or climate-related disasters, curiously there appears to be *much less urgency* about these issues among individual Canadians. Survey respondents were asked the open-ended question of "In your opinion, what is the most important issue facing Canada today?" Only two per cent of Canadians mention issues related to "oil/gas/energy prices and production," while another five per cent mention "environment/climate change."[17] By contrast, more than one in five Canadians considers "the economy/world economy" the most important issue currently facing the nation.

Comparing Aboriginal-Canadians to the general population reveals some key differences between the two groups (Table 2). In particular, although the rate of respondents who identify "energy prices and production" as *most important* is approximately the same in the two groups, a significantly higher percentage of Aboriginal-Canadians identify "the environment/climate change" as most important, compared to their counterparts in the general population.

TABLE 2: MOST IMPORTANT ISSUES IN CANADA ABORIGINAL-CANADIANS AND CANADIANS OVERALL

"In your opinion, what is the most important issue facing Canada today?"	Aboriginal Survey (N = 300)*	General Population Survey** (N = 1,508)
Economy/World Economy	16%	22%
Environment/Climate Change	15%	5%
Health Care	8%	15%
Employment/Unemployment/Jobs/Wages	8%	11%
Gov't Corruption/Dishonesty	7%	2%
Poverty/Homelessness/Affordable Housing	6%	4%
Leadership/National Vision Needed	6%	<1%
Conservatives/Current Gov't/Politicians	5%	2%
Government Spending/Deficit/Debt	4%	8%
Oil/Gas/Energy Prices and Production	3%	2%
Aboriginal/Native Issues/Land/Treaties	3%	<1%
Cost Of Living	2%	1%
Immigration/Foreign Workers	2%	2%
National/Provincial Unity	2%	<1%
Loss Of Canadian Identity/Way Of Life/Liberties	2%	<1%

* *Source: Question A1 (see Appendix C).*

** *Source: Appendix A, Question A1, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).*

[17] See: Turcotte, Moore and Winter, "Energy Literacy."

Particularly in Canada's North, the evidence indicates that climate change over the past several decades has been significant, with implications for adverse impacts on Aboriginal-Canadians living in these regions. Another important issue is contamination of lakes and rivers due to growing industry in and around Aboriginal communities. Estimates suggest that 70 per cent of Aboriginals in the North harvest natural resources through hunting and fishing, almost entirely for subsistence purposes.[18] The vulnerability of Aboriginal-Canadians arising from environmental changes is compounded by the tendency for this population to have limited access to health services, poorer-quality housing, and more ongoing public-health concerns related to a higher risk of infection outbreaks and poor-quality drinking water.[19]

A potential reason that Aboriginal-Canadians may put more emphasis on issues of the environment is that they tend to be affected more directly by environmental degradation and climate change given the location of their communities. Table 3 displays the breakdown of top responses by region. Interestingly, the environment has equal weight with the economy in both Western and Eastern Canada, but is second to the economy in the North. As a caveat to these results, the limited sample size for the North restricts our ability to make broad conclusions based on these responses.[20] There is no real distinction between responses on the economy and the environment as the most important issue for the urban and rural survey respondents. However, urban respondents were more likely to list health care as their top concern, and rural respondents were more likely to list employment.

TABLE 3: TOP ISSUES IN CANADA BY REGION ABORIGINAL SURVEY (N = 300)

"In your opinion, what is the most important issue facing Canada today ?..."	All Respondents	East (N = 88)	West (N = 174)	North (N = 38)
Economy	16%	14%	16%	21%
Environment	15%	14%	16%	13%
Health Care	8%	5%	11%	<1%
Employment/Unemployment/Jobs/Wages	8%	14%	5%	5%
Government Corruption/Dishonesty	7%	13%	6%	<1%

Source: Question A1 (see Appendix C).

Relative Importance of Major Issues

In terms of the importance of energy issues relative to other key issues of the day, the difference between Aboriginal-Canadians and the rest of Canada is less pronounced. Specifically, when asked to rate the level of importance of a range of issues on a scale where zero is "not at all important" and 10 is "very important," both Aboriginal-Canadians and other Canadians ascribe a moderately high rating to energy issues (7.79 and 7.57, respectively). "Clean energy" receives a slightly higher rating from Aboriginal-Canadians at 8.01, although this question was not asked in the general population survey. Results are presented in Figure 5 and Table 4.

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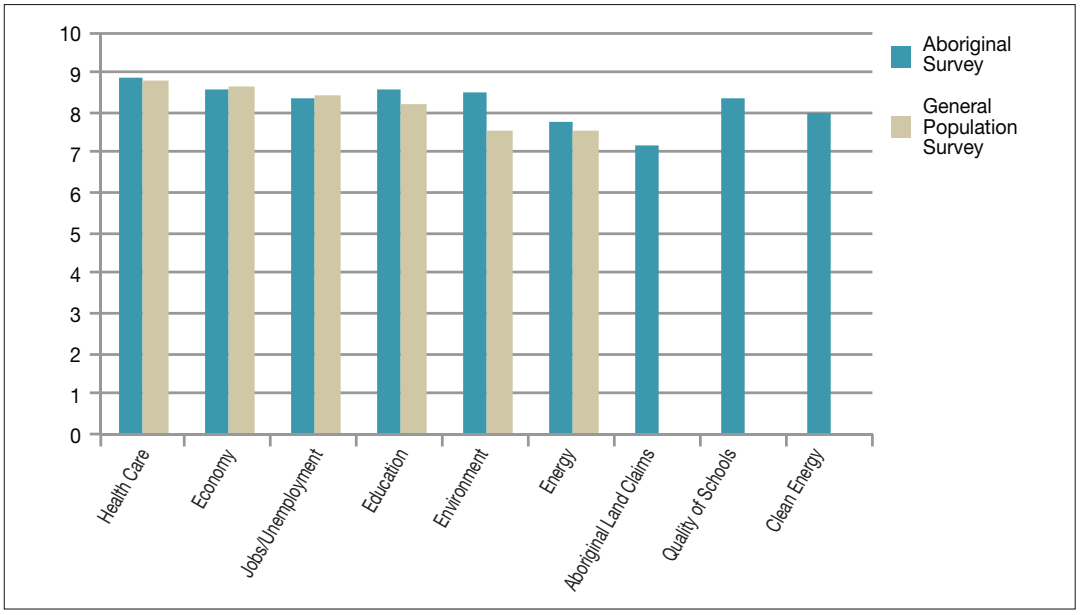
[18] Statistics Canada, "Aboriginal Peoples Survey: Well-Being of the Non-Reserve Aboriginal Population" (Ottawa: Statistics Canada, 2001).

[19] C. Furgal and J. Seguin, "Climate Change, Health, and Vulnerability in Northern Aboriginal Communities," *Environmental Health Perspectives* 114 (2006):1964-1970.

[20] The margin of error at a 95 per cent confidence level increases from +/-5.7 per cent on a sample size of 300 to +/-16.2 per cent with a sample of 38.

FIGURE 5: RELATIVE IMPORTANCE OF CURRENT ISSUES (SCALE OF ZERO TO 10) ABORIGINAL-CANADIANS AND CANADIANS OVERALL



Source: "Using a scale of 0 to 10 where 0 is not at all important and 10 is very important, how important are each of the following issues in Canada right now?..." Aboriginal Survey: Questions A2.0 – A2.8, (see Appendix C). General Population Survey: Appendix A, Questions A2.0 – A2.6, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).

TABLE 4: AVERAGE RELATIVE IMPORTANCE OF CURRENT ISSUES (SCALE OF ZERO TO 10) ABORIGINAL-CANADIANS AND CANADIANS OVERALL

"Using a scale of zero to ten where zero is 'not at all important' and ten is 'very important,' how important are each of the following issues in Canada right now?"	Aboriginal Survey (N = 300)*	General Population Survey** (N = 1,508)
Health Care	8.88	8.84
Economy	8.58	8.71
Jobs/Unemployment	8.42	8.43
Education	8.58	8.24
Environment	8.50	7.57
Energy	7.79	7.57
Aboriginal Land Claims	7.24	N/A
Quality of Schools	8.37	N/A
Clean Energy	8.01	N/A

* *Source: Questions A2.0 – A2.8 (see Appendix C).*

** *Source: Appendix A, Questions A2.0 – A2.6, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).*

The issues that rank highest in importance among both Aboriginal-Canadians and Canadians in general are health care, the economy, jobs and unemployment, and education. The environment also rates high in importance among Aboriginal-Canadians (8.5), but less important among Canadians overall (7.57).

GENERAL LEVEL OF KNOWLEDGE ON ENERGY-RELATED ISSUES

Energy Awareness

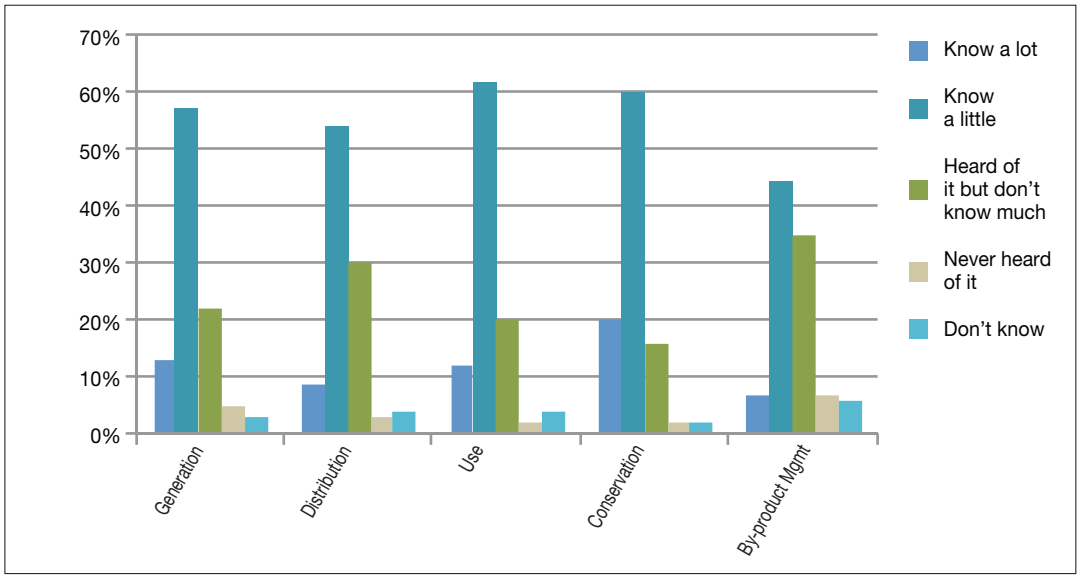
While respondents are concerned about energy, their level of self-reported knowledge is not generally high (Table 5 and Figure 6). Respondents were asked how much they knew about energy use, choosing from a set of predetermined responses ranging from "don't know" to "know a lot." Only 12 per cent indicated that they knew a lot, while 82 per cent indicated they only knew a little or had heard about energy-use issues but, in fact, didn't know much. This relative level of knowledge was repeated fairly consistently in terms of energy generation, distribution and waste-products management. The highest proportion of "know a lot" responses were for the category of energy conservation, a point validated by steps respondents took to mitigate energy costs with changes in personal behaviour (see Translating Energy Awareness section below).

TABLE 5: BROAD KNOWLEDGE OF ENERGY
ABORIGINAL SURVEY (N = 300)

"How much would you say you know about each of the following?..."	Energy generation in Canada	Energy distribution in Canada	Energy use in Canada	Energy conservation	Management of the byproducts of energy generation (waste products)
Know a lot	13%	9%	12%	20%	7%
Know a little	57%	54%	62%	60%	44%
Heard of it but don't know much	22%	30%	20%	16%	35%
Never heard of it	5%	3%	2%	2%	7%
Don't know	3%	4%	4%	2%	6%

Source: Questions B1.0 – B1.4 (see Appendix C).

FIGURE 6: BROAD KNOWLEDGE OF ENERGY
ABORIGINAL SURVEY (N = 300)



Source: Questions B1.0 – B1.4, "How much would you say you know about each of the following? Energy..." (see Appendix C).

The self-assessment of some knowledge, but not a comprehensive understanding, is confirmed when respondents were asked the broader question of whether they have a good understanding of energy issues in Canada. In this question, respondents were asked how strongly they agreed or disagreed with a statement about their own understanding. Here, 16 per cent answered "strongly agree" while 46 per cent answered "somewhat agree." These responses, tabulated in Table 6, are consistent with individuals suggesting they know a little. Interestingly, when asked about the knowledge level of neighbours on energy issues, the responses were much less positive, with only two per cent answering "strongly agree" and 21 per cent answering "agree." An issue with surveys is that respondents often tell questioners what they believe to be the right or appropriate answer, so the questionnaire offered a proxy of "other people's opinions," which often reveals a more accurate reflection of individual beliefs.

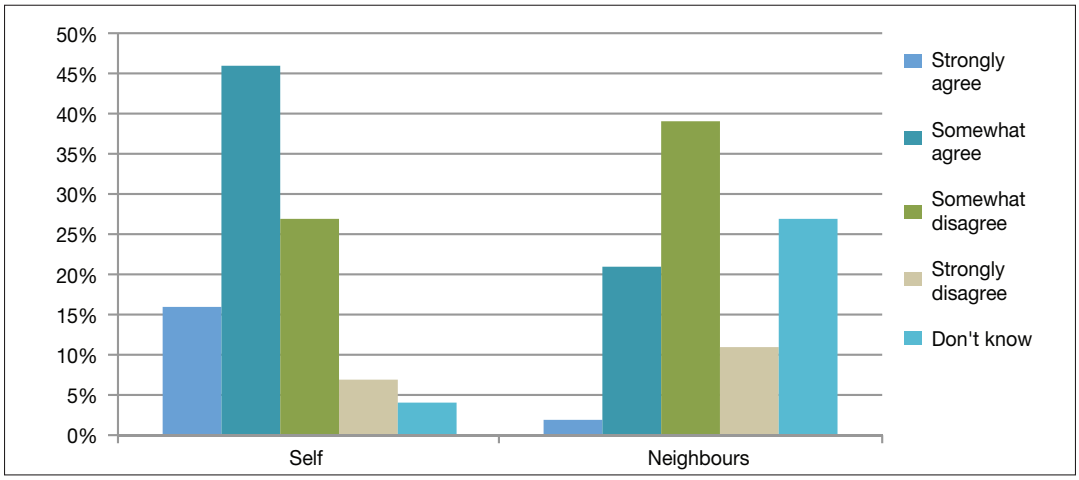
TABLE 6: UNDERSTANDING OF ENERGY ISSUES (ABORIGINAL SURVEY, N = 300)

"How much do you agree or disagree with the following statements?"	I have a good understanding of energy issues in Canada.	My neighbours have a good understanding of energy issues in Canada.
Strongly agree	16%	2%
Somewhat agree	46%	21%
Somewhat disagree	27%	39%
Strongly disagree	7%	11%
Don't know	4%	27%

Source: Questions B2.0 and B2.1 (see Appendix C).

The "disagree" responses were much stronger when individuals evaluated their neighbours' level of knowledge, as were the "don't know" responses. This indicates that most respondents consider themselves to be better informed than their peer group. When the 151 respondents who responded negatively were asked why they thought their neighbours did not understand energy issues (open-ended responses), the two most common responses were "not informed/not intelligent" (16 per cent) and "have no interest/not important" (14 per cent).

FIGURE 7: AGREEMENT WITH "GOOD UNDERSTANDING OF ENERGY ISSUES" ABORIGINAL SURVEY (N = 300)



Source: Questions B2.0 and B2.1, "How much do you agree or disagree with the following statements?... I/my neighbours have a good understanding of energy issues in Canada." (see Appendix C).

Knowledge of Energy Sources

A general test of understanding energy availability and access is knowledge of published or public information regarding types of fuels and primary sources of electricity and heating sources. Respondents were asked closed-response questions regarding whether Canada produces all of the energy it needs, and whether Canada is a net importer or exporter of energy (Table 7). A sizeable portion of respondents did not know whether Canada is an energy exporter or an energy importer. However, the majority of respondents did believe that Canada produces most or all of the energy it needs. To put these responses into context, Canada exports and imports crude oil, natural gas and electricity, and for all three energy types, net exports are positive.[21]

TABLE 7: WHERE CANADIAN ENERGY COMES FROM ABORIGINAL SURVEY (N = 300)

"As far as you know, which of the following statements describes..."	
"...where Canada gets its energy"	
Canada produces all of the energy it needs	20%
Canada produces most of the energy it needs	61%
Canada imports most of the energy it needs	9%
Canada imports all of the energy it needs	1%
Don't know	9%
"...the relationship between Canada's energy imports and energy exports?"	
Net exporter of energy	54%
Net importer of energy	9%
Energy imports and exports are the same	13%
Don't know	24%

Source: Questions E1 and E2 (see Appendix C).

Respondents were also asked what the main source of electricity generation was in their community and in their province (Table 8). While the responses are generally quite similar, notable differences are in the "coal" and "don't know" categories. A second interesting result is that some respondents believe the main source of electricity generation in their province is diesel generation, something that is not generally the case for Canada. This may be respondents assuming that what is the case for their community is also the case for the province writ large, or simply a reflection of respondents from Northern communities.

[21] National Energy Board, "Canadian Energy Overview 2012 – Energy Briefing Note," ISSN 1917-506X.

TABLE 8: MAJOR SOURCE OF ELECTRICITY GENERATION ABORIGINAL SURVEY (N = 300)

"Which one of the following provides the major source of electricity in your...?"	Province	Community
Hydro	63%	63%
Natural gas	12%	11%
Coal	11%	7%
Diesel generator	4%	5%
Nuclear	4%	3%
Wind power	1%	<1%
Other	1%	1%
Don't know	4%	10%

Source: Questions B4 and C2 (see Appendix C).

Table 9 reports responses for respondents' major electricity source for their community by region. While the majority of respondents in each region still indicate hydro as their community's main source of electricity, the second-most-common source is very different. Respondents in the East identified nuclear (10 per cent), while those in the West identified natural gas (16 per cent) and coal (10 per cent), while in the North, diesel generation (29 per cent) was chosen. As noted above, the accuracy of responses decreases as sample size decreases, and so the results should be interpreted with caution.

TABLE 9: MAJOR SOURCE OF COMMUNITY'S ELECTRICITY GENERATION BY REGION ABORIGINAL SURVEY (N = 300)

"Which one of the following provides the major source of electricity in your community?"	All Respondents	East (N = 88)	West (N = 174)	North (N = 38)
Hydro	63%	73%	60%	50%
Natural gas	11%	3%	16%	8%
Coal	7%	5%	10%	<1%
Diesel generator	5%	2%	1%	29%
Nuclear	3%	10%	<1%	<1%
Wind power	<1%	1%	<1%	<1%
Other	1%	<1%	1%	5%
Don't know	10%	6%	12%	8%

Source: Question C2 (see Appendix C).

When asked about the major source of energy available for their own use, the same type of error regarding fuel sources appeared as exhibited by the general population. We show this as a function of the answers by province compared to both the correct answer and in comparison to the other surveys done on this topic. The results show, among other things, a bias towards cleaner or perceived environmentally friendly resources such as hydroelectric or natural gas generation in the electric sector. As a caveat, the sample size in the Aboriginal survey becomes very small when divided across provinces, and the accuracy of responses is compromised. However, the results are indicative of a problem revealed in the first two surveys: there is a lack of knowledge of energy sources across Canada.

TABLE 10: KNOWLEDGE OF ENERGY GENERATION BY PROVINCE OR TERRITORY

"Which one of the following is the major source of electricity generation in your province?"	Per Cent Correctly Identifying Dominant Fuel			
	Dominant Fuel*	Aboriginal Survey** (N = 300)	General Population Survey*** (N = 1,508)	Business and Policy Leaders Survey**** (N = 589)
B.C.	Hydro	91%	94%	94%
Alberta	Coal	26%	35%	38%
Saskatchewan	Coal	38%	34%	46%
Manitoba	Hydro	92%	94%	70%
Ontario	Nuclear	27%	29%	38%
Quebec	Hydro	100%	94%	100%
Atlantic	Coal	24%	51%	63%
The North	Hydro	53%	N/A	72%

* *Source: CANSIM tables 127-0006 through 127-0010.*

** *Source: Question B4 (see Appendix C).*

*** *Source: Appendix A, Question B4, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).*

**** *Source: Appendix A, Question B4, Michal C. Moore et al., "Energy and Energy Literacy in Canada: A Survey of Business and Policy Leadership," The School of Public Policy Research Papers 6, 10 (February 2013).*

Respondents were also asked to identify the source of heat for their dwellings. The responses reflected general use patterns throughout Canada, and were not clearly correlated with the most cost-effective alternative (Table 11). Most respondents were aware of their source of heating fuels, but the choices may reflect the original design of housing units rather than choices made on the basis of efficient and affordable fuels. For instance, in rural areas, a logical choice of fuel would be propane with less dependence on wood, which has a lower heating value to cost of acquisition, while in more urban areas, most homes make use of natural gas and, to a lesser extent, electricity. The survey indicated a reliance on older choices such as fuel oil as well, especially in the North, where transporting this fuel imposes an extra cost burden. As noted above, small sample sizes for the different regions means responses reflect actual heating sources with less certainty. However, Table 11 does point to different use patterns across the three regions.

TABLE 11: MAIN SOURCE OF HEAT
ABORIGINAL SURVEY (N = 300)

"Which one of the following provides your main source of heat?"	All Respondents*	East* (N = 88)	West* (N = 174)	North* (N = 38)	Canada*
Natural gas	50%	28%	66%	32%	50%
Electricity	30%	48%	25%	11%	39%
Wood	8%	9%	5%	18%	6%
Heating oil	7%	9%	1%	29%	7%
Water/Radiators/Geothermal	2%	2%	2%	<1%	
Propane	1%	1%	<1%	5%	1%
Other	<1%	<1%	<1%	3%	
Don't Know/Refused	2%	2%	2%	3%	

* *Source: Question C3 (see Appendix C).*

** *Source: Statistics Canada, "Households and the Environment: Energy Use," (Table 2), catalogue no. 11-526-SWE.*

Translating Energy Awareness

Aboriginal people in rural locations are more affected by energy system price changes, in part, because they tend to be more isolated, with fewer energy-source choices and with energy providers that must ship products longer distances.[22] Sixty-three per cent of survey respondents owned their home, while 31 per cent rented and six per cent had some other arrangement. The fraction of bills paid by landlords (rental units) is low at 13 per cent, with 30 per cent of respondents sharing energy costs with other members of their household, and 51 per cent bearing sole responsibility.

The issue of energy prices is clearly on the minds of those sampled, with many indicating that the cost of energy is increasing. Respondents were asked a closed-response question about the trend they observed in household energy costs over the last two years, with responses in Table 12. Sixty-five per cent indicated that energy costs had increased over the last two years. Viewed on a regional basis, the change in costs of energy appears to be increasing at least slightly at a consistent rate for most groups. A surprising fraction, however, felt costs had either remained the same or actually gone down in the West and East. Very few of those surveyed in the North had no knowledge of costs paid compared to those in the West and East.

TABLE 12: TREND IN HOUSEHOLD ENERGY COSTS OVER THE PAST TWO YEARS ABORIGINAL SURVEY (N = 300)

"Which one of the following best describes the trend you have observed in your household energy costs over the last two years?"	All Respondents	East (N = 88)	West (N = 174)	North (N = 38)
Gone up significantly	31%	27%	32%	39%
Gone up slightly	34%	31%	36%	37%
Remained about the same	19%	22%	17%	21%
Gone down	8%	10%	8%	3%
Don't Know	8%	10%	8%	<1%

Source: Question C6 (see Appendix C).

Those who indicated that energy costs had increased were asked the follow-up question of whether this negatively affected their ability to afford other key items (Table 13). Sixty-eight per cent of the sub-sample (44 per cent of all respondents) indicated that the cost of energy negatively affected their ability to pay for other key items. According to the Survey of Household Spending, average expenditure per household in 2011 was $73,457 — 6.3 per cent of which was energy-related expenditures.[23] Table 14 displays the distribution of respondents' annual household income. As a comparison, Canadian average total income (for all family units) was $66,200 in 2011, and median total income was $48,300.[24]

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[22] This is evidenced by the fact that 25 per cent of Aboriginal communities are off-grid, and that these communities account for approximately 25 per cent of the rural Aboriginal population.

[23] Statistics Canada, CANSIM Table 203-0021. Energy expenditures include electricity, natural gas and other fuel for principal accommodation, as well as gasoline and other fuels.

[24] Statistics Canada, CANSIM Table 202-0410.

TABLE 13: THE MONTHLY COST OF ENERGY NEGATIVELY AFFECTS AFFORDABILITY ABORIGINAL SURVEY, RESPONDENTS INDICATING ENERGY COSTS INCREASED (N = 197)

"How much do you agree or disagree that the cost of energy per month in your household has negatively affected your ability to afford other key items"	
Strongly agree	30%
Somewhat agree	38%
Somewhat disagree	22%
Strongly disagree	7%
Don't know	3%

Source: Question C7 (see Appendix C).

TABLE 14: ANNUAL HOUSEHOLD INCOME ABORIGINAL SURVEY (N = 300)

"Within which of the following categories does your yearly total household income fall?"	
Under $20,000	7%
$20,000 to under $39,999	14%
$40,000 to under $59,999	18%
$60,000 to under $79,999	12%
$80,000 to under $99,999	12%
$100,000 to under $124,999	9%
$125,000 to under $149,999	4%
$150,000 or more	6%
Prefer not to answer	17%

Source: Question Z7 (see Appendix C).

Aboriginal households have taken clear steps to mitigate this trend of increasing costs and have been actively engaging in behaviour to minimize cost impacts while still obtaining critical power supplies. Responses to the question on energy efficiency measures respondents are engaged in or have done are shown in Table 15.

TABLE 15: ENERGY-EFFICIENCY MEASURES TAKEN ABORIGINAL SURVEY (N = 300)

"Which of the following activities are you already doing or have already done?"	
Replaced light bulbs/energy efficient	63%
Reduced household waste by at least 50 per cent	51%
Spend less time in the shower/no baths	51%
Thermostat at 18°C in winter	51%
Reduced power consumption at least 30 per cent	46%
Buying produce in season/store it	36%
Sharing rides or taking public transit	29%
Cut driving by at least 50 per cent	27%
Reduced air travel by at least 50 per cent	24%
Bought more energy-efficient vehicle	23%
Paid $250 for a home energy audit	7%
None of these	8%

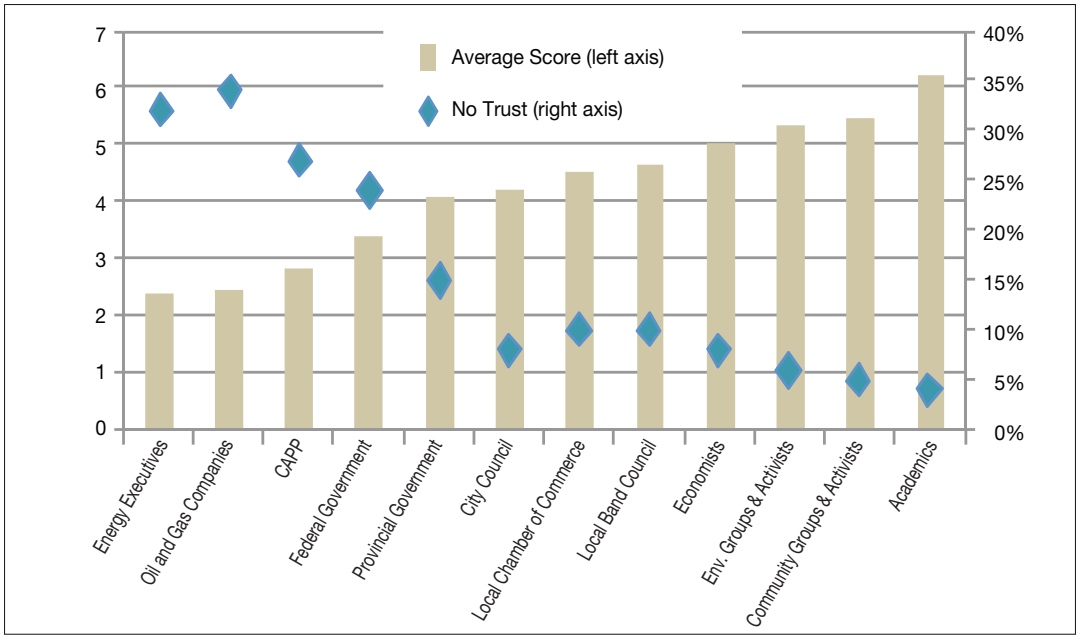
Source: Question C8 (see Appendix C).

COMMUNITY AND POLICY CONCERNS

Trust and Energy

Decisions on energy systems involve significant and long-term investments in capital and land use. Considering the history of Aboriginal people, it is no surprise that those interviewed have strong opinions about the nature of decisions affecting them, the people making those decisions and the sources of information available to them.

FIGURE 8: AVERAGE TRUST SCORE AND PROPORTION OF RESPONDENTS ANSWERING "NO TRUST" ABORIGINAL SURVEY (N = 300)



Source: Questions F2.0 – F2.11, "Using a scale of 0 to 10 where 0 is not at all trustworthy and 10 is very trustworthy, how trustworthy do you consider the following as a source of information on energy issues in Canada?..." (see Appendix C).

Respondents were asked to rate the veracity of various sources on a scale of zero to 10, with zero indicating "not at all trustworthy" and 10 indicating "very trustworthy." These are exactly the same choices as those offered in the first two surveys, and while the rank order remains the same, the levels of trust — especially trust in the energy industry — are much lower. A second distinct difference is the trust level in the federal government.

Figure 8 shows the average trust score for each group and the proportion of respondents indicating they had "no trust" in that group. As expected, a higher proportion of "no trust" answers is negatively correlated with average trust scores.

Table 16 shows the percentage of respondents in each survey answering no trust (zero), some trust to neutral (one to five) and neutral to full trust (six to 10). Overall, it appears the Aboriginal respondents are less trusting of the energy sector, with a higher proportion selecting zero when asked about oil and gas companies, energy executives and CAPP (the Canadian Association of Petroleum Producers). The federal government also scores relatively low, with 24 per cent of Aboriginal respondents answering "not at all trustworthy" on the trustworthiness of the federal government.

TABLE 16: WHO DO YOU TRUST: PERCENTAGE OF TOTAL RESPONDENTS RANKING TRUSTWORTHINESS

Category	No Trust (0)			Some Trust to Neutral (1-5)			Neutral to Full Trust (6-10)		
	Aboriginal Survey* (N = 300)	General Population Survey** (N = 1,508)	Business and Policy Leaders Survey*** (N = 589)	Aboriginal Survey* (N = 300)	General Population Survey** (N = 1,508)	Business and Policy Leaders Survey*** (N = 589)	Aboriginal Survey* (N = 300)	General Population Survey** (N = 1,508)	Business and Policy Leaders Survey*** (N = 589)
Oil and Gas Companies	34%	26%	14%	51%	41%	54%	14%	19%	29%
Energy Executives	32%	22%	15%	52%	52%	56%	17%	21%	27%
CAPP	27%	19%	12%	48%	50%	49%	15%	24%	32%
Local Band Council	10%	n/a	n/a	45%	n/a	n/a	35%	n/a	n/a
Provincial Government	15%	13%	5%	53%	49%	41%	27%	34%	51%
Federal Government	24%	15%	9%	49%	47%	44%	23%	34%	44%
City Council	8%	8%	7%	58%	55%	49%	26%	31%	39%
Environmental Groups and Activists	6%	7%	7%	44%	40%	47%	46%	46%	42%
Community Groups and Activists	5%	5%	6%	41%	44%	49%	48%	47%	40%
Economists	8%	4%	3%	42%	39%	34%	43%	51%	59%
Academics	4%	3%	3%	30%	31%	29%	59%	58%	65%
Local Chamber of Commerce	10%	6%	4%	47%	47%	49%	32%	39%	40%

* *Source: Questions F2.0 – F2.11 (see Appendix C).*

** *Source: Appendix A, Questions E3.0 – E.11, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).*

*** *Source: Appendix A, Questions G2.0 – G2.11, Michal C. Moore et al., "Energy and Energy Literacy in Canada: A Survey of Business and Policy Leadership," The School of Public Policy Research Papers 6, 10 (February 2013).*

Environmental Consequences of Energy Development

Canada has a large and growing energy sector that yields substantial economic and employment benefit to Canadians. At the same time, the environmental impact of energy production is considerable. Environmental degradation is associated with oil and gas exploration and development, mining coal, and the construction of nuclear reactors, hydroelectric dams and reservoirs. In turn, the pollutants generated from burning fossil fuels have environmental consequences as well.

Given the wealth of natural resources that Canada possesses, it is not surprising that the impact of energy generation on the environment is an issue of concern. This is particularly true for Aboriginal-Canadians, some of whom rely directly on natural resources for subsistence (e.g., fishing and hunting).[25] Another important consideration is the deep cultural and spiritual connection of Aboriginal-Canadians to Canada's land and natural resources.

[25] Furgal and Seguin, "Climate Change."

TABLE 17: LEVEL OF CONCERN TOWARD THE IMPACT OF ENERGY GENERATION ON THE ENVIRONMENT

"Overall, how concerned are you with the impact of energy generation on the environment...?"	Aboriginal Survey* (N = 300)		General Population Survey** (N = 1,508)
	Generally	In Your Community	Generally
Very concerned	42%	27%	28%
Somewhat concerned	40%	40%	49%
Not too concerned	12%	18%	16%
Not at all concerned	2%	7%	3%
Don't know	4%	8%	4%

* *Source: Questions D2 and D4 (see Appendix C).*

** *Source: Appendix A, Question C2, André Turcotte, Michal C. Moore and Jennifer Winter, "Energy Literacy in Canada," The School of Public Policy Research Papers 5, 32 (October 2012).*

Table 17 displays responses to the question of how concerned respondents were over the impact of energy generation on the environment, comparing the Aboriginal survey to the general population survey. Aboriginal-Canadians are more concerned than other Canadians about the impact of energy generation on the environment. Specifically, the percentage of Aboriginal-Canadians who are "very concerned" about environmental impacts is 50 per cent greater than the percentage of their non-Aboriginal counterparts (42 per cent and 28 per cent, respectively). The difference in concern between the two groups is less pronounced if the "very" and "somewhat" categories are combined to create a "general concern" category. Specifically, general concern toward the effects of energy generation on the environment is 82 per cent among Aboriginals and 77 per cent among other Canadians.

However, when the question was phrased slightly differently, to ask about the effect of energy generation on the environment *in their community*, responses were similar to those given in the general population. Only 27 per cent of Aboriginal respondents were "very concerned," with 40 per cent "somewhat concerned" — revealing concern levels that are lower than among the general population. At the local level, we see diminished levels of high concern, most likely because, on average, any given community is not likely to be impacted directly by energy projects that are effectively regional in nature.

The 246 respondents who answered that they were concerned about the impact of energy generation on the environment in general were asked a follow-up question of why they were concerned. The strongest response (43 per cent) was regarding pollution and its negative consequences on land and the environment. The second-most popular response (12 per cent) was regarding planning for the future and preserving quality for children. Of those who weren't concerned about environmental quality (14 per cent), the main reason cited was that there were other, more pressing social priorities that should be addressed first (47 per cent).

Respondents were asked about the role of governments in the impact of energy generation on the environment — whether the provincial and federal governments should be doing more, less or are doing enough. There is a strong feeling that the provinces could be doing more to protect the environment and that the federal government is similarly failing in its role (Table 18). Significant as well in this view is that a large fraction of those interviewed do not follow these issues closely enough to have an opinion.

TABLE 18: ROLE OF GOVERNMENTS IN THE IMPACT OF ENERGY GENERATION ON THE ENVIRONMENT ABORIGINAL SURVEY (N = 300)

"When it comes to the impact of energy generation on the environment, which of the following statements regarding the role of the ... government is closest to your own view?"	Provincial	Federal
The government should be doing more	66%	67%
The government should be doing less	3%	4%
The government is doing enough	16%	8%
Don't know	15%	21%

Source: Questions D8 and D10 (see Appendix C).

Respondents were also asked about the influence of local governments in discussions about the impact of energy generation on the environment in their community/region (question D12A; see Appendix C). A strong minority (44 per cent) felt that local government did not have enough influence, while 27 per cent did not know. Ten per cent felt local governments have too much influence, while 19 per cent indicated the balance was right. These responses are interesting, given the strong responses to the question about whether federal and provincial governments are doing enough.

A follow-up question was asked regarding how the discussions would be different if local government was involved (Table 19). While a strong minority of responses (43 per cent) indicated this would be a positive change, 26 per cent indicated it would have negative consequences. Equally interesting is that a large proportion of respondents did not have an opinion or refused to share it.

TABLE 19: EFFECT OF LOCAL GOVERNMENT HAVING A BIGGER ROLE ABORIGINAL SURVEY (N = 300)

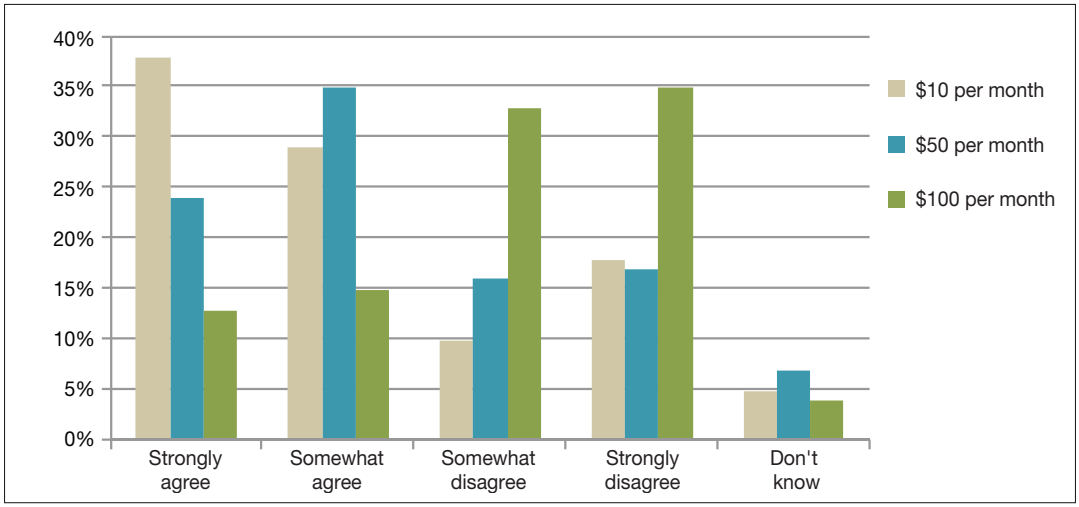
"How do you think these discussions would be different if local government were given a bigger role in the discussions about the impact of energy generation on the environment?"	
Better Knowledge/Local Needs/Invested	19%
No Change/Many Non-Issues/More Delays	15%
Bigger/Better Change/All Encompassing	9%
Consensus/Input/Ownership/Understanding	9%
May have Undesirable Change/Own Agenda	7%
Overall Good/Should Have Say/Respect	6%
Provincial/Federal Have control/Local No Power	3%
May Include Uninformed Opinion	2%
Change not Wanted/Would Cut Revenue	2%
Other	5%
Don't know/Refused	24%

Source: Question D12B (see Appendix C).

Willingness to Pay for Environmental Mitigation (WTP)

The interest in environmental protection in the face of energy-system expansion is strongly reinforced by a willingness to pay ("strongly agree" and "somewhat agree") for these arrangements over time. The sample was split into three sub-samples, each asked about their willingness to increase their energy bills in order to protect the environment. The energy bill increases were $10 per month (103 respondents; question D15A), $50 per month (99 respondents; question D15B) and $100 per month (98 respondents; question D15C). Not unexpectedly, the support was strongest at the lowest cost levels ($10 per month per household) but the decline in support at the next price level ($50 per month per household) was not precipitous and did not show serious erosion until a level of $100 per month per household. Based on average 2011 Canadian household expenditures on energy-related items, an energy bill increase of $100 per month is equivalent to a 26 per cent increase in annual energy expenditures.[26]

FIGURE 9: WILLINGNESS TO PAY PER MONTH TO PROTECT THE ENVIRONMENT ABORIGINAL SURVEY (N = 300)



Source: Question D15A, D15B, D15C; "How much do you agree or disagree with the following statement: I would pay $10/$50/$100 per month extra in energy bills to protect the environment" (see Appendix C).

When respondents were asked for a measure of support in a more general way — that is, in terms of overall energy costs increasing — similar positive support was indicated, with 60 per cent agreeing strongly or somewhat with the idea. Table 20 compares the responses across all four questions. Support for the more general energy-cost increase is very similar to that for the $50 per month increase, representing a 13 per cent increase in annual energy costs.

[26] Statistics Canada CANSIM Table 203-0021. Energy expenditures include electricity, natural gas and other fuel for principal accommodation, as well as gasoline and other fuels.

TABLE 20: WILLINGNESS TO PAY TO PROTECT THE ENVIRONMENT ABORIGINAL SURVEY (N = 300)

	"How much do you agree or disagree with the following statement:"			
	I would pay ... per month extra in energy bills to protect the environment			Preserving the quality of the environment is worth a 10 to 25 per cent increase in future energy costs (N = 300)
	$10 per month (2.6 per cent annual increase) (N = 103)	$50 per month (13 per cent annual increase) (N = 99)	$100 per month (26 per cent annual increase) (N = 98)	
Strongly agree	38%	24%	13%	25%
Somewhat agree	29%	35%	15%	35%
Somewhat disagree	10%	16%	33%	16%
Strongly disagree	18%	17%	35%	16%
Don't know	5%	7%	4%	8%

Source: Questions D15A, D15B, D15C, F1.0 (see Appendix C).

Support for Traditional and Alternative Energy

Respondents were asked how much they support/oppose the construction of renewable energy sources such as wind in their community (question C12; see Appendix C). Respondents were strongly in favour, with 58 per cent answering "strongly support," 29 per cent answering "somewhat support," only 10 per cent strongly or somewhat opposing (four and six per cent, respectively), and three per cent without an opinion. However, Table 21 shows that respondents prefer to rely on government subsidies to fund renewable energy, rather than funding it through higher energy bills, a statement somewhat inconsistent with the willingness to pay responses shown in the section above.

TABLE 21: SUPPORT FOR RENEWABLE ENERGY FUNDING MECHANISMS ABORIGINAL SURVEY (N = 300)

	"How much do you agree or disagree with the following statements: Renewable energy sources..."		
	Should be funded by the government with subsidies	Should be funded by consumers via higher energy bills	Should not be funded
Strongly agree	46%	5%	6%
Somewhat agree	35%	26%	11%
Somewhat disagree	7%	27%	22%
Strongly disagree	7%	37%	48%
Don't know	6%	5%	13%

Source: Questions D7.0 – D.7.2 (see Appendix C).

Similarly, when respondents were asked whether small-scale electricity contributions should be encouraged via tax incentives (question F1.1; see Appendix C), an overwhelming majority agreed: 60 per cent answered "agree" and 28 per cent answered "somewhat agree." The remaining 12 per cent of responses were split between "don't know" (six per cent), "disagree" (two per cent) and "somewhat disagree" (three per cent).

When asked "should rural communities receive government subsidies to ensure they receive uninterrupted access to high-quality, efficient sources of energy?" (question C9), respondents were definitive in saying yes (Table 22), a statement that suggests subsidies are desirable, even among urban respondents. This is consistent with the support for funding renewable energy via subsidies.

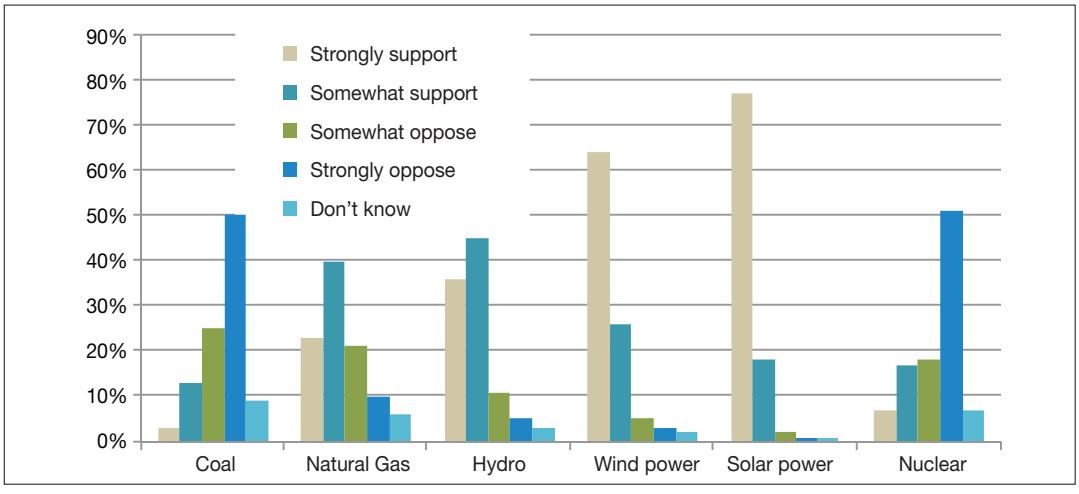
TABLE 22: SUPPORT FOR ENERGY SUBSIDIES IN RURAL COMMUNITIES ABORIGINAL SURVEY (N = 300)

"In your opinion, should rural communities receive government subsidies to ensure they receive uninterrupted access to high quality, efficient sources of energy?"	All Respondents	Urban (N = 220)	Rural (N = 80)
Yes	75%	72%	85%
No	25%	28%	15%

Source: Question C9 (see Appendix C).

Beyond renewables, the survey also asked questions to elicit respondents' view of and support for traditional energy sources. Figure 10 shows opinions on increased development of different energy sources in the respondents' provinces. Respondents exhibited a clear disdain for coal systems, clearly the icon for a power source that is "not clean." Wind and solar power were strongly supported. Surprisingly, overall support for "cleaner" technologies such as hydroelectric or gas turbine generation were relatively weak in the survey population. Nuclear power was viewed almost as negatively as coal.

FIGURE 10: SUPPORT FOR INCREASED DEVELOPMENT OF VARIOUS ENERGY SOURCES ABORIGINAL SURVEY (N = 300)



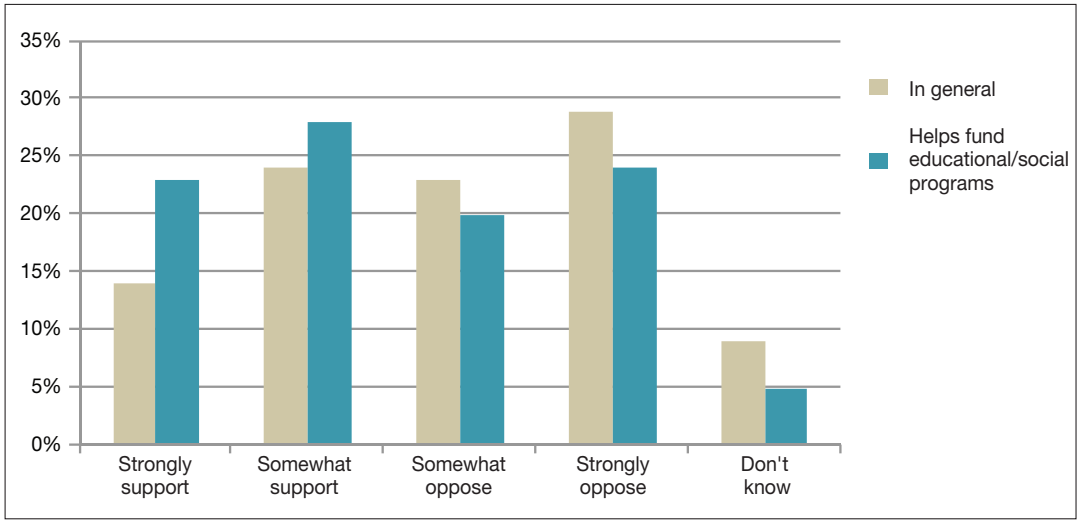
Source: Questions D1.0 – D1.5, "How much do you support not oppose the increased development of the following in your province?..." (see Appendix C).

Energy-System Investments

Energy systems are land and capital intensive. Long-term investments in land use and commitments to infrastructure management involve community commitments in terms of labour and community design that can be disruptive. Given the importance of energy in maintaining quality of life, opinions on energy infrastructure and its development are important for designing public policy. As such, respondents were asked about different types of energy infrastructure and their opinion on development.

Support for oil and gas pipeline development near communities is relatively low (question C10; see Appendix C), with 38 per cent of respondents in total indicating they support development (Figure 11). Support increases to a slim majority (51 per cent) when the pipeline development was tied to money that helped "fund additional social and education programs" for the community (question C11). Moreover, the category of "somewhat support" did not respond much to this change, but "strongly support" did, indicating some respondents switched from opposition to support. Overall, support increased by 12 percentage points, while opposition decreased by eight percentage points, leading to a small majority in support.

FIGURE 11: SUPPORT FOR THE CONSTRUCTION OF OIL AND GAS PIPELINES NEAR RESPONDENTS' COMMUNITY ABORIGINAL SURVEY (N = 300)



Source: Question C10, "How much do you support or oppose the construction of oil and gas pipelines in or near your community?" and C11, "How much do you support the construction of oil and gas pipelines in your community if money from the project helped to fund additional social and educational programs for your community?" (see Appendix C).

Table 23 shows the cross-tabulation between support for construction of oil and gas pipelines near respondents' communities, and support when construction is tied to money helping fund education or social programs. We see that the idea of funding educational or social programs within a community moves respondents from opposition to support, though the majority of respondents are consistent in their answer across the two questions.

TABLE 23: SUPPORT FOR THE CONSTRUCTION OF OIL AND GAS PIPELINES NEAR RESPONDENTS' COMMUNITY

		Support in General				
		Strongly support	Somewhat support	Somewhat oppose	Strongly oppose	Don't know
Support if Money for Community	Strongly support	54%	36%	4%	0%	6%
	Somewhat support	5%	54%	26%	4%	12%
	Somewhat oppose	2%	3%	68%	22%	5%
	Strongly oppose	0%	0%	3%	96%	1%
	Don't know	0%	0%	21%	14%	64%

Source: Question C10, "How much do you support or oppose the construction of oil and gas pipelines in or near your community?" and C11, "How much do you support the construction of oil and gas pipelines in your community if money from the project helped to fund additional social and educational programs for your community?" (see Appendix C).

When the issue of development offshore or in coastal areas is raised, "strong support" wanes and the communities are nearly evenly split between support and opposition (Table 24). This suggests the concept of environmental protection and land stewardship extends to broad zones beyond traditional Aboriginal lands.

TABLE 24: SUPPORT FOR OFFSHORE OIL AND GAS EXPLORATION AND DRILLING

"How much do you support or oppose offshore oil and gas exploration and drilling?"	In General	Along Canada's Coasts
Strongly support	8%	9%
Somewhat support	33%	30%
Somewhat oppose	21%	21%
Strongly oppose	26%	30%
Don't know	11%	10%

Source: Questions D13 and D14 (see Appendix C).

Cultural preferences, government responsibilities and ties to land use clearly dominate the responses of those surveyed. While Aboriginal-Canadians do not appear to have high levels of specific information regarding energy issues, they have strong and consistent feelings about land use and the association of their lands for energy development and use.

There is a strong thread of desire to control their own destiny and land use, excluding issues that might be construed as "country first." This is validated at various points in the survey where respondents showed a clear preference for maintaining environmental quality over broad energy development, especially when their own lands were the basis of expansion.

TABLE 25: ABORIGINAL LANDS AND SUPPORT FOR ENERGY DEVELOPMENT
ABORIGINAL SURVEY (N = 300)

"How much do you agree or disagree with the following statements?..."	Government should prevent the development of energy infrastructure on reserves	Development of Canada's oil and gas must respect Aboriginal land claims and treaty rights
Strongly agree	14%	57%
Somewhat agree	19%	24%
Somewhat disagree	27%	7%
Strongly disagree	22%	7%
Don't know	19%	5%

Source: Questions F1.2 and F1.3 (see Appendix C).

When asked about whether the government should prevent energy infrastructure development on reserves, a strong minority of 49 per cent answered "disagree" or "strongly disagree." Thirty-three per cent selected "agree" or "strongly agree," and 19 per cent did not express an opinion. However, when tested against the question of the primacy of land claims and treaties, specifically regarding the development of Canada's oil and gas resources, 81 per cent of those surveyed felt that any future development should respect these pre-existing agreements.

The relationship between land claims, treaty rights and oil and gas development in Canada was explored through a question on the requirement of respecting those claims and rights. Not surprisingly, as outlined in Table 25, a majority of respondents (57 per cent) strongly agreed, with slightly less than half that agreeing. What is somewhat surprising is the 14 per cent disagreeing with the question, though this response could be attributable to those who disagree with oil and gas development taking place at all.

This cultural attachment wavers slightly when the question of other permitted uses (in general) is raised, with the question of whether cultural attachment of the land may mean no other use is permitted (question F1.6, see Appendix C). In this instance, 37 per cent responded positively, indicating that they believe no other uses should be allowed, but a near majority of 46 per cent expressed support for integrating some other land-use development opportunities.

Respondents were also asked about negotiations between Aboriginals and the federal government with regard to the future of energy development, and which aspect of negotiations they deemed most important (Table 26). The responses give a clear view of what is required in future negotiations.

TABLE 26: MOST IMPORTANT ASPECT OF NEGOTIATIONS ON ENERGY DEVELOPMENT
ABORIGINAL SURVEY (N = 300)

"When thinking about the negotiations between the federal government and Aboriginals about the future of energy, which of the following aspects do you think is the most important?"	
Responsibilities	31%
Rights	25%
Respect	24%
Recognition	9%
Don't know	6%
Returns	5%

Source: Question D16 (see Appendix C).

LOOKING TO THE FUTURE

Respondents were generally optimistic about the future, with 48 per cent believing that Canada's best years were yet to come, and 32 per cent believing Canada's best years are in the past. A significant proportion (20 per cent) were not concerned or expressed a lack of interest in this question, suggesting a disconnect with overall country-wide progress, as opposed to local progress and economic gains in the future.

When asked about the biggest challenge facing their community (question C1A, see Appendix C), the top answers by respondents were employment (14 per cent), poverty (eight per cent), infrastructure needs (eight per cent), crime and justice (seven per cent) and the environment and pollution (seven per cent). Energy was ranked 12th, with three per cent of respondents identifying it as a challenge. Respondents were also asked about the biggest energy-related challenge facing their community (Table 27). Access to energy, prices and alternatives pose a challenge for Aboriginal people. The range of that challenge is broad, with nearly a fifth (19 per cent) indicating that the cost of utilities is the major issue, and a similar number of respondents indicating they had not thought about it or refused to answer (18 per cent), with the balance of responses split across a wide range of issues.

TABLE 27: BIGGEST ENERGY-RELATED CHALLENGE FACING COMMUNITY ABORIGINAL SURVEY (N = 300)

"What is the biggest challenge related to energy currently facing your community?"	
Cost of Energy/Utilities/Bills	19%
Reducing Energy Costs/Energy Use	9%
Protect Env./Land/Water/Reduce Threats	7%
Build/Improve Infrastructure	7%
Reduce Fossil Fuel/Using Green/Clean	6%
Reliable Energy/Spikes/Brownouts/Blackouts	5%
Need More/Better Alternatives	5%
Too Much Waste	4%
None/No Issues	3%
Leadership/Accountability/Funding	3%
Need Pipelines/Need Oil and Gas	3%
Too Many People/Cars/Buildings	2%
Fracking/Shale Gas	2%
Exporting Too Cheap	1%
Other	7%
Don't know/Refused	18%

Source: Question C1B (see Appendix C).

There is a strong thread of self-reliance that appears to transfer to national decisions and policies. When asked about the use of energy resources for future economic development, a clear majority of respondents indicated that self-reliance was more important than overall increases in wealth. This opinion is consistent with responses in the two previous surveys. Seen on a regional basis, the questions of independence and future revenue sources from energy exports produce different visions of the future. As a caveat, the small sample size associated with the different regions, especially the North, makes drawing concrete conclusions suspect.

However, there does appear to be stronger support for achieving self-reliance in the West and North compared to the East, and more certainty in responses from respondents located in the territories.

TABLE 28: DIRECTION OF CANADIAN ENERGY POLICY: INDEPENDENCE VERSUS REVENUES ABORIGINAL SURVEY (N = 300)

"Which of these viewpoints are closest to your own? Canada's energy policy should be..."	All Respondents	East (N = 88)	West (N = 174)	North (N = 38)
Focused on bringing money	22%	23%	22%	18%
Focused on achieving self-reliance	64%	58%	65%	76%
Don't know	14%	19%	13%	5%

Source: Question E3 (see Appendix C).

This sense of self-reliance is reinforced when respondents were asked about the choice between exporting resources now versus saving them for future use in Canada (Table 29). Here, 74 per cent were either strongly or somewhat in agreement that saving for the future was the correct policy option. There is a contradiction apparent with the point above, regarding the use of energy resources that will represent a choice between long-term land protection, environmental quality and economic growth. Here the preference is clearly toward environmental protection, with 70 per cent of those surveyed agreeing with the idea that it is more important to protect the land and environment, rather than seeking energy independence.

TABLE 29: SUPPORT FOR ENERGY POLICIES ABORIGINAL SURVEY (N = 300)

"How much do you agree or disagree with the following statements? Canada should..."	Limit exports to save for Canadian future use	Protect the environment over achieving energy independence
Strongly agree	36%	30%
Somewhat agree	38%	40%
Somewhat disagree	14%	19%
Strongly disagree	6%	4%
Don't know	6%	6%

Source: Questions F1.4 and F1.5 (see Appendix C).

A further inconsistency is revealed in responses regarding Canada's trade relationship with the United States. Respondents were asked about the importance of the U.S. as an energy-trade partner (Table 30 and Figure 12). The relationship of economic activity and dominant trading with the United States was something respondents acknowledged, with a majority (63 per cent) indicating that reducing this relationship is very important or somewhat important for Canada.

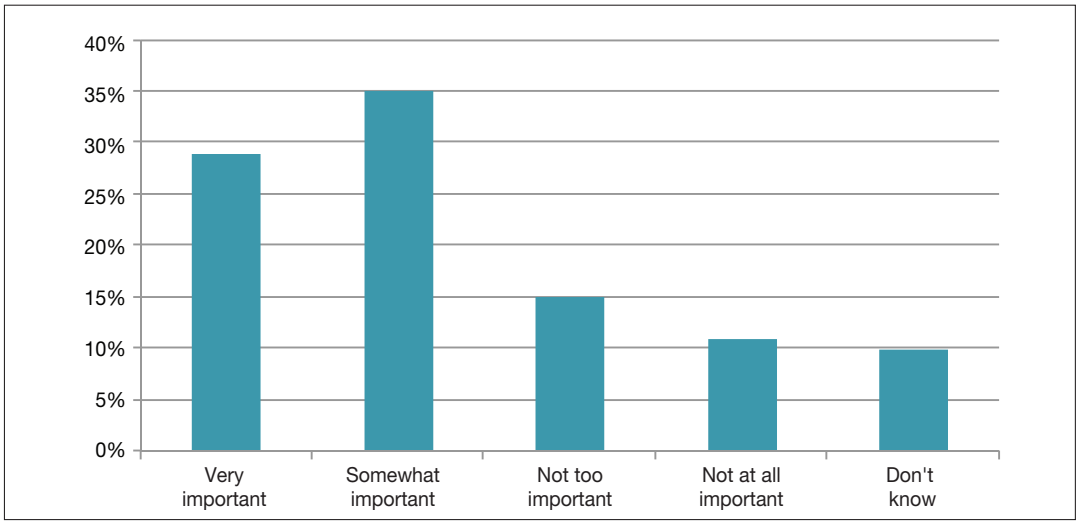
TABLE 30: IMPORTANCE OF REDUCING RELIANCE ON THE UNITED STATES ABORIGINAL SURVEY (N = 300)

"In your opinion, how important is it that we reduce our reliance on the United States by exporting more of our energy to other countries?"	All Respondents	East (N = 88)	West (N = 174)	North (N = 38)
Very important	29%	22%	32%	34%
Somewhat important	35%	35%	36%	32%
Not too important	15%	20%	14%	8%
Not at all important	11%	11%	10%	13%
Don't know	10%	11%	9%	13%

Source: Question E4 (see Appendix C).

When energy exports are viewed across regions, a majority believe that we should reduce our dependence on the U.S. in terms of energy exports specifically. A clear difference is in the East versus the West and the North; in the East fewer respondents rate reducing reliance on the United States as "very important" and more choose "not too important." Again, caution should be used when examining these regional proportions due to the small sample sizes, but a general pattern does emerge with the eastern provinces viewing the need to reduce reliance on the United States as less important.

FIGURE 12: IMPORTANCE OF REDUCING RELIANCE ON THE UNITED STATES ABORIGINAL SURVEY (N = 300)



Source: Question E4, "As you may know, currently up to 98% of some Canadian energy exports go to the United States. In your opinion, how important is it that we reduce our reliance on the United States by exporting more of our energy to other countries?" (see Appendix C).

When asked to identify the challenges that lie ahead in meeting energy demands, both today and 10 years from now, a range of responses points to a lack of consensus about the right path or policies to pursue in the future on a country-wide basis (Table 31). However, many respondents did indicate that managing energy supply and developing supply was a key challenge.

TABLE 31: THE BIGGEST CHALLENGE CANADA FACES IN MEETING ENERGY DEMAND ABORIGINAL SURVEY (N = 300)

"In your opinion, what is the biggest challenge Canada faces in terms of meeting energy demand..."	Today (N = 158)	10 Years from Now (N = 134)
Manage Supply to Meet Demand	15%	12%
Cost/Efficient/Cheaper Energy	15%	10%
Developing Supply/Clean Alternatives	14%	18%
Environmental Issues/Pollution	9%	13%
Deal With Gov't/Big Business/Interest Grps.	8%	6%
Overconsumption/Need Conservation	6%	6%
Exports/Pipeline to U.S./Foreign Owners	5%	7%
Cost Increase/Investment/Funding	4%	7%
No Big Challenges/None	3%	2%
Educate Public/Research/Support	3%	3%
Responsible/Accountable/Leadership	2%	2%
Other	8%	4%
Don't know/refused	8%	9%

Source: Questions D.6A and D.6B (see Appendix C).

CONCLUSIONS

As stated earlier, a key objective of this study is to create a baseline of knowledge regarding energy and energy economics among Aboriginal-Canadians. This report accomplishes that and frames the issues conterminously with two previous surveys of Canadian households and of business and policy leaders. The results broadly indicate opportunities to increase energy awareness in the population (who are all, by definition and without exception, energy consumers), and identify near-term policies, such as increases in energy efficiency, that offer improved living conditions and ultimately more appropriate policies for long-term energy development across the country. In the case of Aboriginal-Canadians, maintaining cultural integrity and ties to land are critical. This report suggests avenues where policy initiatives that take this into account can be developed, such as improved environmental standards and rural housing design. Moreover, it provides a basis from which to get to a better understanding of the needs and attitudes of this important community.

The survey reveals as much about settlement patterns, and embedded use characteristics, as it does about energy knowledge. For instance, with regard to energy "choices" or use, for the energy systems available to urban or suburban residents (which includes more than 50 per cent of Aboriginal-Canadians), electric power is obtained via central grids, and transportation fuels – such as gasoline or diesel – determine or serve vehicle choices. Consequently, community design and proximity to power systems tends to frame the choices available, while consumption will be heavily dependent on income and personal or collective technology and appliances used in homes and businesses. Incentives to change these patterns will largely reflect knowledge about the value of alternative behaviour or purchases in determining individual benefits.

What we can observe is that for Aboriginal residents of urban and suburban communities, patterns of use and knowledge of the energy systems around them are very similar to households, businesses and community leaders across Canada, with variances that appear to be geographically distinct depending on region. A clear exception appears to be a stronger association or tie to energy use and development with land-based impacts. Aboriginal-Canadians generally feel a stronger need to manage the connection between environmental quality and energy development and use than other groups.

Aboriginals display a strong identification with cultural and historical values that appear to outweigh a possible interest in some economic gains that could arise from energy development; this concern extends even to those areas of the coastal region beyond where most respondents currently live. Aboriginal-Canadians are in favour of policies that emphasize independence over revenue, a feeling that is likely linked to their historical cultural relationships to land and land ethics.

There are strong differences between community size and knowledge, as well as opinion about energy development and use, with those living in or near urban centres reflecting views commonly shared across Canada, and those in rural areas seeing the value simultaneously of more land protection, with a corresponding need for more assistance in energy efficiency and public subsidies.

Costs of energy and personal economics are associated with energy use and by type, and most groups have been taking steps to address them. This is shown most clearly in terms of personal or family investments in energy-efficiency measures, such as insulation and even changing transportation choices, although the outcomes and choices vary widely.

In general, Aboriginal knowledge of energy *issues* is similar to that of most households in Canada, although there is a slightly stronger acknowledgement of a lack of knowledge in some surveyed categories regarding energy-industry characteristics. However, when asked about leadership and trust in the energy industry, Aboriginal-Canadians are strongly skeptical and demonstrate a not-unexpected lack of confidence in government figures and leaders in the energy industry. They reserve their highest levels of trust for academics, who are perceived as relatively neutral on energy issues.

The willingness to pay for mitigating environmental damage caused by energy production and transfer is high and consistently strong across regions. The associated commitment to a land-preservation ethic is clear and is amplified by the persistent opinion that control of land activities and access should remain with indigenous people. This point is woven throughout the results of the survey and offers a cautionary note for governments and industry as they seek to develop agreements and plans for future energy development.

Ultimately, energy-literacy issues for Aboriginal-Canadians represent a challenge and an opportunity. Energy demands for living represent a significant investment and ongoing cost, so understanding how to control the demands put on the system, or on various fuels by individual households, can bring long-term economic and health benefits. The role of education and demonstration projects here seems clear, although the method of communication is not and deserves further discussion with community leaders.

Of equal importance is the role of Aboriginal-Canadians in the nature of energy development and transfer across land areas where they reside or have residual interests. The energy-literacy dialogue would be incomplete without taking this factor into account, and when combined with the issue of trust in leadership and public policy, indicates a clear need for long-term, consistent and collaborative efforts to improve understanding and access to reliable and useful energy-system information.

The survey does reveal a consistent area of need for Aboriginal people when energy systems and investments are considered. First, there is a correlation between income and residence, and expenditures on a per-capita basis on energy for heat, lighting and transportation. In the case of rural Aboriginal communities, targeting energy-efficiency investments, perhaps including targeted programs to improve insulation or installed lighting, can have significant payoffs in the short and long term. Second, since many of the rural Aboriginal communities are not served by central grid power, they are necessarily dependent on deliveries of fuel, such as diesel for generators as well as for vehicles. The costs involved, even when subsidized heavily, are difficult to mitigate or manage. This situation can be addressed in long-range community-development strategies that combine education as well as thoughtful distributed and integrated energy systems that include renewable energy, storage capacity and limited reliance on hydrocarbon energy resources.

APPENDIX A: SURVEY METHODOLOGY

This survey and report is the third instalment in our Energy Literacy Series. The first study, "Energy Literacy in Canada,"[27] revealed that Canadians have a good understanding of energy use and relative cost, but they lack detailed knowledge about sources of energy fuels, as well as sources and linkages with environmental impacts." In that survey of the general Canadian population, 1,508 respondents completed an online survey between March 24th and April 2nd, 2012. The participation rate was 41.9 per cent, and responses are accurate within a margin of error of +/- 3.0 percentage points within a confidence interval of 95 per cent. Additional details, including a comparison of the survey sample to the Canadian population, are available in the original publication.

This was followed by "Energy and Energy Literacy in Canada: A Survey of Business and Policy Leadership."[28] The second survey, of business and policy leaders, was conducted in July 2012, with 589 respondents, split between businesspeople (348) and policy-makers (241). Individuals in all 10 provinces, as well as the three territories, were asked to participate. This survey was designed to capture the opinions of a relatively equal number of policy-makers and business leaders throughout Canada. Business leaders were drawn from a national pool of executives and managers in a wide range of enterprises who had decision-making authority in their field; policy-makers were drawn from a pool of public-agency and non-profit, public-policy institutions who had authority to approve investments or had knowledge of energy investments in their field of interest. This second study showed that elite knowledge about energy was not much different than that of the Canadian public at large. We suggested that states of knowledge evolve, both through education and experience. Consequently, the issue of energy literacy must also be treated as a dynamic and evolving process.

Aboriginal communities are difficult to study completely and accurately. The distributed nature of the communities in which Aboriginals reside, the relatively low density of housing and common phone and internet access poses real methodological challenges. However, we believe that difficulty should not be an obstacle to all attempts to understand this important community. Accordingly, we took an exploratory approach in this study. We conducted a total of 300 interviews with Aboriginal people. While the relatively small sample restricts our ability for inference, we believe that this study provides an important starting point for a fuller conversation about energy literacy among Aboriginal people in this country. We see this study as a robust first step towards a deeper analysis in the near future. This study also establishes general benchmark measures against which change will be measured.

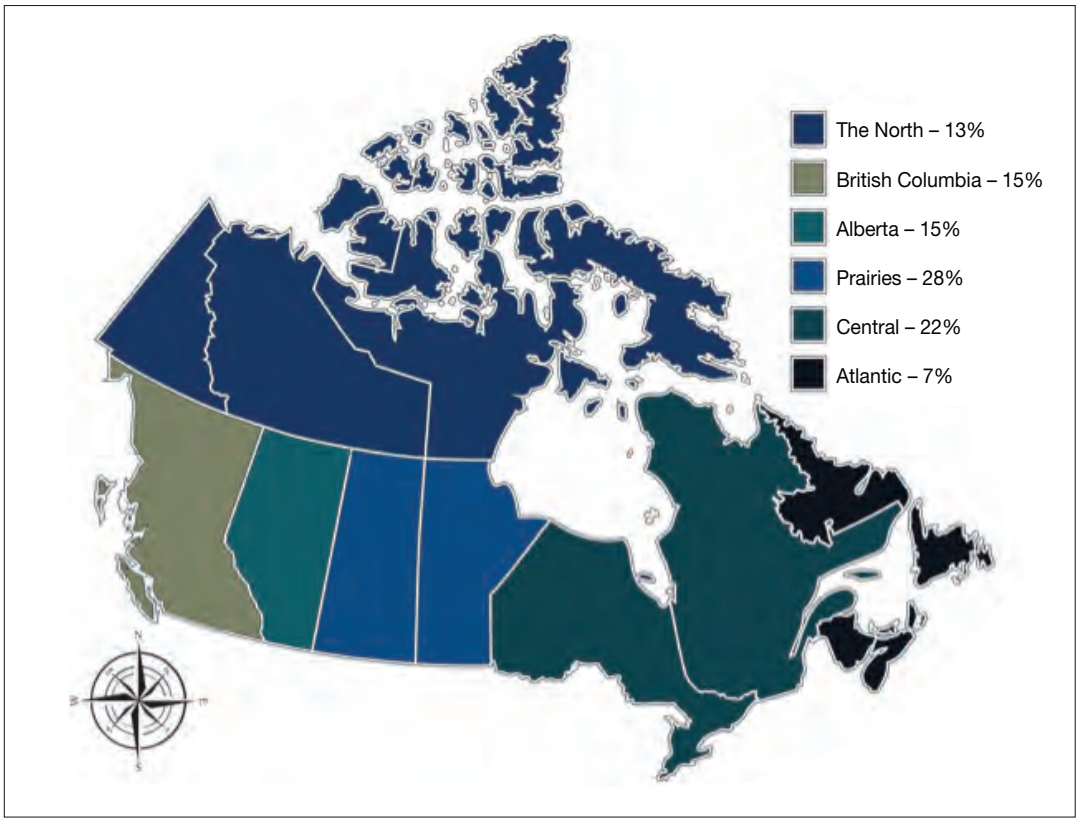
In specific terms, a total of 300 Aboriginal-Canadians participated in this study. The sample was constructed in three phases. First, a random sample was generated from an existing panel of pre-identified Aboriginal-Canadians, Second, a first wave of invitations (2,048) were generated and the accuracy of the profile was verified to ensure that the respondents were Aboriginal, Métis or First Nations people. Fourteen per cent of this original subsample could not be verified and was therefore excluded. Thirdly, another random subsample was generated

[27] Turcotte, Moore and Winter, "Energy Literacy."

[28] Moore et al., "Energy and Energy."

and 715 participants were directly invited to take part in this study. A total of 300 participants completed the survey for a participation rate of 42 per cent (in line with the participation rate from our general population study). Participants were given the option to complete the study online or over the phone. Interviews were completed between July 6th and 15th, 2013. As noted in the figure below, participants were from all regions of the country.

FIGURE A1: DISTRIBUTION OF RESPONDENTS ACROSS CANADA

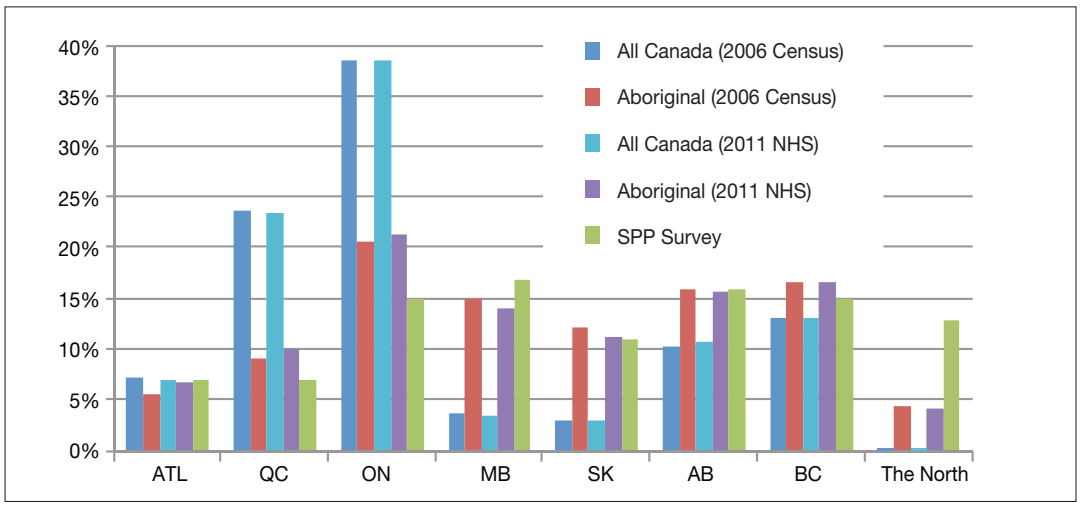


While the sample is arguably not fully random, it does provide a starting place. Assuming a random sample, responses are accurate within a margin of error of +/- 5.7 percentage points within a confidence interval of 95 per cent. Our studies provide a first step, creating a baseline of understanding of the general population, as well as subgroups that can be culturally, economically and geographically distinct from one another in terms of the long-term demands they will put on our energy resources.

APPENDIX B: POPULATION AND SAMPLE CHARACTERISTICS

Figure B1 shows the population distribution for all Canadians (2006 and 2011) compared to the Aboriginal-identity population (2006 and 2011) and the survey respondents. Population percentages for 2006 are from the 2006 census, while population counts for 2011 are from the National Household Survey (NHS). First, comparing the census population counts and the NHS population counts, we see the Aboriginal population is much more evenly distributed across Canada than the total Canadian population, with a much greater presence in the northern territories. The difference in the population distribution in Quebec and Ontario is particularly striking. We see that the survey in general matches proportions well, though there was significant over-sampling in the northern territories.[29]

FIGURE B1: POPULATION DISTRIBUTION, ALL OF CANADA, ABORIGINAL-IDENTITY POPULATION AND SURVEY RESPONDENTS



Source: Aboriginal Survey: Question AA2; Statistics Canada, 2006 Census, Aboriginal Peoples Highlight Tables and "Aboriginal Peoples in Canada: First Nations Peoples, Métis and Inuit."

The survey reflected a strong regional bias to western provinces, with 58 per cent of those responding living in the West (British Columbia, Alberta, Saskatchewan and Manitoba), 29 per cent in Atlantic and Eastern Canada (Ontario, Quebec, New Brunswick, Nova Scotia, Newfoundland and Labrador) and 13 per cent in the North (Nunavut, Northwest Territories and Yukon). The distribution of aboriginal identity by region is reported in Table B1. East is defined as Ontario to the Atlantic; West is Manitoba to the Pacific, and North is the three northern territories.

[29] As a caveat, it is important to have a large enough sample of each regional subgroup, especially given the same survey size in general, in order to draw conclusions about responses from the subgroups.

TABLE B1: RESPONDENTS' ABORIGINAL IDENTITY BY REGION

	East (N=88)	West (N = 174)	North (N = 38)
First Nations / North American Indian	64%	40%	39%
Métis	35%	60%	55%
Inuk (Inuit)	1%	<1%	5%

Source: Question AA3 (see Appendix C).

While roughly 44 per cent of Aboriginal-Canadians were living in a rural location in 2006, only 26.7 per cent of respondents identified themselves as living in a rural location. In terms of demographic characteristics, survey respondents ranged in age from 18 to 74, with an average age of 46 and a median age of 46.5. In contrast, the median age in the 2011 NHS was 27.7. Forty-three per cent of respondents were male, and 57 female. Table B2 compares the demographic characteristics of the survey respondents to demographic characteristics from the 2006 census and 2011 National Household Survey.

TABLE B2: DEMOGRAPHIC CHARACTERISTICS, SURVEY AND ABORIGINAL-IDENTITY POPULATION

	Survey*	Aboriginal-Identity Population (NHS 2011)**	Aboriginal-Identity Population (Census 2006)***
Aboriginal Identity			
First Nations / North American Indian	47%	60.8%	59.5%
Métis	52%	32.3%	33.2%
Inuk (Inuit)	1%	4.2%	4.3%
Multiple Aboriginal Identities		0.8%	0.7%
Aboriginal Identities not included elsewhere		1.9%	2.3%
Sex			
Female	57%	51.3%	51.2%
Male	43%	48.7%	48.8%
Age**			
18 to 24	6%	13.3%	13.3%
25 to 34	17%	21.5%	22.9%
35 to 44	16%	20.7%	24.0%
45 to 54	29%	21.3%	20.3%
55 to 64	22%	13.7%	11.5%
65+	10%	9.5%	8.0%
Education			
High school or less	28%	51.70%	65.50%
College/CEGEP/other non-university	34%	38.50%	26.50%
University degree (undergraduate and graduate)	31%	9.80%	5.20%
None of the above	2%		
Refused	6%		

* *Source: Questions AA3, Z2, Z3 and Z6 (see Appendix C).*

** *Source: Statistics Canada, "Aboriginal Peoples in Canada: First Nations People, Metis and Inuit," 2013, catalogue number 99-011-X2011001; Statistics Canada, NHS 2011, catalogue number 99-011-X2011028; Statistics Canada, NHS 2011, "Educational Attainment of Aboriginal peoples in Canada," 2013, catalogue number 99-012-X2011003.*

*** *Source: Statistics Canada, 2006 Census, Aboriginal Peoples Highlight Tables*

**** *For NHS and census results, age distribution is 20 and older.*

In terms of Aboriginal identity, the survey under-sampled the First Nations and Inuit identities, and over-sampled Métis. Women were slightly over-sampled, though the age distributions match relatively well. The survey matched the distribution of non-university-degree, post-secondary education quite well, but had a substantially higher proportion of university-educated respondents relative to the 2011 NHS and 2006 census.

Family size is shown in Table B3; the majority of respondents lived in households with no children. Sixty-three per cent of respondents owned their own homes, 31 per cent rented, and the remainder had some other housing arrangement. Unfortunately, there is no directly comparable data on family size, income or housing arrangements from either the census or National Household Survey.

TABLE B3: RESPONDENTS' HOUSEHOLD SIZE (INCLUDING SELF) BY AGE GROUPS (N = 300)

	Children 12 and under	Children aged 13 to 17	Adults 18 and over
0	75%	86%	6%
1	11%	11%	20%
2	8%	3%	52%
3 or more	6%	<1%	22%

Source: Questions Z5.0 – Z5.2 (see Appendix C).

APPENDIX C: SURVEY QUESTIONS

[INTRO]

Thank you for taking the time to complete this survey about important issues in Canada today. Please rest assured that this is strictly a survey. Any information you provide in this survey will be kept confidential and combined with other survey responses. As a result, your privacy and anonymity are guaranteed. This survey should take less than 15 minutes to complete, and we encourage you to be open and honest in your responses.

AA1 – POSTAL CODE VARIABLE FROM SAMPLE

AA2 – PROVINCE VARIABLE FROM SAMPLE

AA3

Are you an Aboriginal person, that is, First Nations, Métis or Inuk (Inuit)? First Nations includes Status and Non-Status Indians.

1 First Nations / North American Indian
2 Métis
3 Inuk (Inuit)
4 Refused (Terminate)

SECTION A: Warm-up

[A1]

In your opinion, what is the most important issue facing Canada today?

[VERBATIM RESPONSE]

[A2]

Using a scale of 0 to 10 where 0 is "not at all important" and 10 is "very important," how important are each of the following issues in Canada right now?

[GRID ROWS; RANDOMIZE]

- Health care
- Economy
- Jobs/unemployment
- Aboriginal Land Claims
- Education
- Quality of Schools
- Environment
- Energy
- Clean Energy

[GRID COLUMNS; SINGLE RESPONSE PER ROW]

- 0 – Not at all important
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 – Very important
- Don't know

SECTION B: Awareness and Familiarity

[B1]

How much would you say you know about each of the following?

[GRID ROWS; RANDOMIZE; SINGLE RESPONSE PER ROW]

- Energy generation in Canada
- Energy distribution in Canada
- Energy use in Canada
- Energy conservation
- Management of the by-products of energy generation (waste products?)

[GRID COLUMNS]

- Know a lot
- Know a little
- Heard of it but don't know much
- Never heard of it

[B2]

How much do you agree or disagree with the following statements?

[GRID ROWS; DO NOT RANDOMIZE; SINGLE RESPONSE PER ROW]

- "I have a good understanding of energy issues in Canada."
- "My neighbours have a good understanding of energy issues in Canada."

[GRID COLUMNS]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[B3]

[IF DISAGREE WITH "NEIGHBOURS" IN B2]

What do you think that your neighbours do not understand about energy issues in Canada?

[VERBATIM RESPONSE]

[B4]

As far as you know, which one of the following is the major source of electricity generation in your province?

[RANDOMIZE; SINGLE RESPONSE]

- Coal
- Natural gas
- Hydro
- Wind power
- Solar power
- Nuclear
- Diesel Generator
- Other

SECTION C: Local Circumstances and Energy Use

[C1A]

In your opinion, what is the biggest challenge currently facing your community?

[VERBATIM]

[C1B]

What is the biggest challenge related to energy currently facing your community?

[VERBATIM]

[C2]

Can you tell me which one of the following provides the major source of electricity for your community?

[RANDOMIZE; SINGLE RESPONSE]

- Coal
- Natural gas
- Hydro
- Wind power
- Solar power
- Nuclear
- Diesel Generator
- Other

[C3]

Now, thinking about your own household, can you tell me which one of the following provides your main source of heat?

[RANDOMIZE; SINGLE RESPONSE]

- Electricity
- Natural gas
- Heating oil
- Wood
- Other [specify]

[C4]

Which of the following best describes how your household energy costs are paid?

[SINGLE RESPONSE]

- I alone pay the energy costs for my household
- I share my household energy costs with the other members of my household
- My landlord is responsible for paying the energy costs for my household
- Other [specify]

[C5]

[IF "I ALONE PAY OR I SHARE HOUSEHOLD ENERGY COSTS" IN C4]

Can you tell me the approximate total amount of your energy costs per month?

[NUMERICAL RESPONSE]

[C6]

In your opinion, which one of the following best describes the trend you have observed in your household energy costs over the last two years?

[SINGLE RESPONSE]

- My household energy costs have gone up significantly over the past two years
- My household energy costs have gone up slightly over the past two years
- My household energy costs have remained about the same over the past two years
- My household energy costs have gone down over the past two years
- Don't Know

[C7]

[IF "COSTS GONE UP SIGNIFICANTLY OR SLIGHTLY" IN C6]

How much do you agree or disagree that the cost of energy per month in your household has negatively affected your ability to afford other key items such as food, clothes, transportation, housing upkeep etc?

[SINGLE RESPONSE]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[C8]

Which of the following activities are you already doing or have already done? Please check all that apply.

[MULTIPLE RESPONSE, RANDOMIZE]

- Bought a more energy efficient vehicle.
- Cut driving by at least 50%.
- Sharing rides or taking public transit.
- Replaced all light bulbs with energy efficient light bulbs.
- Reduced power consumption at home by at least 30%.
- Keeping thermostat at 18 degrees Celsius or less during the winter, and wear a sweater.
- Spend less time in the shower, with no baths.
- Reduced household waste by at least 50%.
- Reduced air travel by at least 50%.
- Paid $250 for a home energy audit.
- Buying local produce in season and can/store it for off season.
- None of these

[C9]

In your opinion, should rural communities receive government subsidies to ensure they receive uninterrupted access to high quality, efficient sources of energy?

[SINGLE RESPONSE]

- Yes
- No

[C10]

How much do you support or oppose the construction of oil and gas pipelines in or near your community?

[SINGLE RESPONSE]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

[C11]

How much do you support the construction of oil and gas pipelines in your community if money from the project helped to fund additional social and educational programs for your community?

[SINGLE RESPONSE]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

[C12]

How much do you support or oppose the construction of a renewable energy source like wind-power in your community?

[SINGLE RESPONSE]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

SECTION D: Environmental Concerns

[D1]

How much do you support or oppose the increased development of each of the following in your province?

[GRID ROWS; RANDOMIZE; SINGLE RESPONSE PER ROW]

- Coal
- Natural gas
- Hydro
- Wind power
- Solar power
- Nuclear

[GRID COLUMNS]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

[D2]

Overall, how concerned are you with the impact of energy generation on the environment generally?

[SINGLE RESPONSE]

- Very concerned
- Somewhat concerned
- Not too concerned
- Not at all concerned

[D3A] *[IF CONCERNED IN D2]*

Why do you say that?

[VERBATIM]

[D3B] *[IF NOT CONCERNED IN D2]*

Why do you say that?

[VERBATIM]

[D4]

Overall, how concerned are you with the impact of energy generation on the environment in your community?

[SINGLE RESPONSE]

- Very concerned
- Somewhat concerned
- Not too concerned
- Not at all concerned

[D5A] *[IF CONCERNED IN D4]*

Why do you say that?

[VERBATIM]

[D5B] *[IF NOT CONCERNED IN D4]*

Why do you say that?

[VERBATIM]

[SPLIT SAMPLE: D6A; D6B]

[D6A]

In your opinion, what is the biggest challenge Canada faces in terms meeting energy demands today?

[VERBATIM]

[D6B]

In your opinion, what will be the biggest challenge faced by Canada in terms of meeting energy demand 10 years from now?

[VERBATIM]

[D7]

How much do you agree or disagree with the following statements:

[GRID ROWS; DO NOT RANDOMIZE; SINGLE RESPONSE PER ROW]

- "Renewable energy sources should be funded by the government with subsidies"
- "Renewable energy sources should be funded by consumers via higher energy bills"
- "Renewable energy sources should not be funded"

[GRID COLUMNS]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[D8]

When it comes to the impact of energy generation on the environment, which of the following statements regarding the role of the provincial government is closest to your own view?

- Provincial government should be doing more
- Provincial government should be doing less
- Provincial government is doing enough

[D9A] *[IF D8 IS "MORE"]*

Why do you say that?

[VERBATIM]

[D9B] *[IF D8 IS "LESS"]*

Why do you say that?

[VERBATIM]

[D9C] *[IF D8 IS "ENOUGH"]*

Why do you say that?

[VERBATIM]

[D10]

When it comes to the impact of energy generation on the environment, which of the following statements regarding the role of the federal government is closest to your own view?

[SINGLE RESPONSE]

- Federal government should be doing more
- Federal government should be doing less
- Federal government is doing enough

[D11A] *[IF D10 IS "MORE"]*

Why do you say that?

[VERBATIM]

[D11B] *[IF D10 IS "LESS"]*

Why do you say that?

[VERBATIM]

[D11C] *[IF D10 IS "ENOUGH"]*

Why do you say that?

[VERBATIM]

[D12]

Do you think local government have too much, just enough or too little influence in the discussions about the impact of energy generation on the environment in your community or region?

[VERBATIM]

[D13]

How much do you support or oppose offshore oil and gas exploration and drilling?

[SINGLE RESPONSE]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

[D14]

How much do you support or oppose offshore oil and gas exploration drilling along Canada's coasts?

[SINGLE RESPONSE]

- Strongly support
- Somewhat support
- Somewhat oppose
- Strongly oppose

THREE-WAY SPLIT SAMPLE: D15A; D15B; D15C]

[D15A]

How much do you agree or disagree with the following statement: "I would pay $10 per month extra in energy bills to protect the environment"

[SINGLE RESPONSE]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[D15B]

How much do you agree or disagree with the following statement: "I would pay $50 per month extra in energy bills to protect the environment"

[SINGLE RESPONSE]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[D15C]

How much do you agree or disagree with the following statement: "I would pay $100 per month extra in energy bills to protect the environment"

[SINGLE RESPONSE]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[D16]

When thinking about the negotiations between the federal government and Aboriginals about the future of energy development in Canada, which of the following aspects do you think is most important?

[SINGLE RESPONSE]

- Respect
- Recognition
- Rights
- Responsibilities
- Returns

SECTION E: Energy Imports and Exports

[E1]

As far as you know, which one of the following statements best describes where Canada gets its energy?

[RANDOMIZE; SINGLE RESPONSE]

- Canada produces all of the energy it needs at home
- Canada produces most of the energy it needs at home
- Canada imports most of the energy it needs from other countries
- Canada imports all of the energy it needs from other countries
- *[ANCHOR]* Don't Know

[E2]

As far as you know, which one of the following statements best describes the relationship between Canada's energy imports and energy exports

[RANDOMIZE; SINGLE RESPONSE]

- Canada is a net exporter of energy – that is, it exports more energy than it imports
- Canada is a net importer of energy – that is, it imports more energy than it exports
- [ANCHOR] Canada's energy imports and exports are roughly the same
- [ANCHOR] Don't Know

[E3]

[RANDOMIZE OTHER OF STATEMENTS]

Some people say that Canada's energy policy should be focused on bringing money into the country even if it means that we have to import some of our energy from other countries. Other people say that Canada's energy policy should be focussed on achieving energy self-reliance from the rest of the world (that is, no imports from other countries) even if it means reducing our profitability.

Which of these two viewpoints is closest to your own?

[SINGLE RESPONSE]

- Canada's energy policy should be focused on bringing money into the country even if it means that we have to import some of our energy from other countries.
- Canada's energy policy should be focused on achieving energy self-reliance from the rest of the world (that is, no imports from other countries) even if it means reducing our profitability.

[E4]

As you may know, currently up to 98% of some Canadian energy exports go to the United States. In your opinion, how important is it that we reduce our reliance on the United States by exporting more of our energy to other countries?

[SINGLE RESPONSE]

- Very important
- Somewhat important
- Not too important
- Not at all important

SECTION F: Attitudes and Behaviours

[F1]

How much do you agree or disagree with the following statements?

[GRID ROWS; RANDOMIZE; SINGLE RESPONSE PER ROW]

- "Preserving the quality of the environment is worth a 10% to 25% increase in energy costs in the future"
- Small-scale electricity contributions such as rooftop solar panels or run of river turbines should be encouraged with taxation incentives"
- The government should prevent the development of energy infrastructure on reserves"
- "The development of Canada's oil and gas must be respect Aboriginal land claims and treaty rights"
- "Canada should limit exports of energy (e.g., oil, gas, coal) in order to preserve supplies for future use here at home"
- "It is more important for Canada to protect the land and our environment than to achieve energy independence"
- "I have a cultural attachment to the land on which I live, that may mean no other land uses are permitted"

[GRID COLUMNS]

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree

[F2]

Using a scale of 0 to 10 where 0 is "not at all trustworthy" and 10 is "very trustworthy," how trustworthy do you consider the following as a source of information on energy issues in Canada?

[GRID ROWS; RANDOMIZE]

- Oil and gas companies
- Energy company executives
- Canadian Association of Petroleum Producers
- Local band councils
- Provincial government
- Federal government
- City councillors
- Environmental groups and activists
- Community groups and activists
- Economic experts
- Academics
- Local chamber of commerce

[GRID COLUMNS; SINGLE RESPONSE PER ROW]

- 0 – Not at all trustworthy
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10 – Very trustworthy
- Don't know

SECTION G: Profiling Questions

[G1]

In your opinion, are Canada's best years yet to come in the future, or are they in the past?

[SINGLE RESPONSE]

- Canada's best years are yet to come in the future
- Canada's best years are in the past

[G2]

What is your main source of information on energy issues?

[RANDOMIZE; SINGLE RESPONSE]

- Community gatherings
- Friends/family/colleagues
- Government reports
- Industry reports
- Television
- Internet – general
- Website
- Blogs
- Local newspapers
- National newspapers
- Magazines
- Radio
- Other (please specify)
- None

[G3]

Overall, how satisfied are you with the amount of information on energy issues that is currently available?

[SINGLE RESPONSE]

- Very satisfied
- Somewhat satisfied
- Not very satisfied
- Not at all satisfied

SECTION Z: Demographics

Thank you for your time and openness so far. We have just a few more questions to help us classify your responses today.

[Z1]

How would you describe the community where you live?

[VERBATIM]

[Z2]

Are you…

[SINGLE RESPONSE]

- Male?
- Female?

[Z3]

In what year were you born?

[NUMERICAL RESPONSE: RANGE = 1900-1994]

[Z4]

Please enter only the first three digits of your postal code in the space below.

[ALPHANUMERIC RESPONSE; FORMAT A1A]

[Z5]

Including yourself, how many people currently live in your household in each of the following age groups?

[GRID ROWS; DO NOT RANDOMIZE]

- Children aged 12 and under
- Children aged 13 to 17
- Adults 18 and older

[GRID COLUMNS]

- 0
- 1
- 2
- 3 or more

[Z6]

What is the highest level of education that you have completed or the highest degree that you have received?

[SINGLE RESPONSE]

- Less than high school (Grades 1-8)
- High school diploma or equivalent
- College, CEGEP or other non-university certificate or diploma
- Undergraduate university degree, certificate or diploma
- Master's degree
- Degree in medicine, dentistry, veterinary medicine or optometry
- Doctorate
- None of the above
- Prefer not to answer

[Z7]

Within which of the following categories does your yearly total household income fall?

[SINGLE RESPONSE]

- Under $20,000
- $ 20,000 to under $39,999
- $ 40,000 to under $59,999
- $ 60,000 to under $79,999
- $ 80,000 to under $99,999
- $100,000 to under $124,999
- $125,000 to under $149,999
- $150,000 or more
- Prefer not to answer

[Z8]

Which one of the following categories best describes your current employment status?

[SINGLE RESPONSE]

- Employed full-time
- Employed part-time
- Self-employed
- Currently between jobs
- Student
- Homemaker
- Retired

[Z9]

Do you rent or own your home?

[SINGLE RESPONSE]

- Own
- Rent
- Neither – other arrangement

[OUTRO]

Thank you very much for your valuable feedback. We greatly appreciate your participation in this important survey.

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